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COLUMBIA | GREENVILLE

September 28, 2005

**VIA EMAIL & HAND DELIVERED**

Mr. Charles Terreni  
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Public Service Commission of South Carolina  
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COMMISSION

**Re: Generic Proceeding to Explore a Formal Request for Proposal  
Process for Utilities that are Considering Alternatives for Adding  
Generating Capacity  
Docket No. 2005-191-E**

Dear Mr. Terreni:

Enclosed for filing on behalf of NewSouth Energy, LLC please find the testimony of Timothy Eves and David E. Dismukes. By copy of this letter we are serving the same on other parties of record. Please stamp the extra copy of this letter and return it with our courier as proof of filing. Should you have any questions, please have someone on your staff contact me.

Yours truly,

ROBINSON, MCFADDEN & MOORE, P.C.

Frank R. Ellerbe, III

/bds

enclosures

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Ms. Daphne Duke (via email)

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF SOUTH CAROLINA**

**DOCKET NO. 2005-191-E**

RECEIVED  
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IN THE MATTER OF: )  
)  
Generic Proceeding to Explore a Formal )  
Request for Proposal for Utilities that )  
are Considering Alternatives for Adding )  
Generating Capacity )

**DIRECT TESTIMONY  
OF  
DAVID E. DISMUKES, PH.D.**

**ON BEHALF OF  
COLUMBIA ENERGY LLC**

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**DIRECT TESTIMONY OF**  
**DAVID E. DISMUKES, PH.D.**  
**ON BEHALF OF**  
**NEWSOUTH ENERGY LLC**  
**DOCKET NO. 2005-191-E**

**I. INTRODUCTION**

**Q WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS ADDRESS?**

A My name is David E. Dismukes. My business address is 6455 Overton Street, Baton Rouge, Louisiana.

**Q WOULD YOU PLEASE STATE YOUR OCCUPATION AND CURRENT PLACE OF EMPLOYMENT?**

A I am a Consulting Economist with the Acadian Consulting Group (“ACG”), a research and consulting firm that specializes in the analysis of regulatory, economic, financial, accounting, and public policy issues associated with regulated and energy industries. ACG is a Louisiana-registered partnership, formed in 1995, and is located in Baton Rouge, Louisiana.

**Q HAVE YOU PREPARED ANY ATTACHMENTS TO YOUR TESTIMONY OUTLINING YOUR QUALIFICATIONS IN ELECTRIC AND REGULATED INDUSTRIES?**

A Yes. Attachment 1 to my testimony provides my academic vita that includes a full listing of my publications, presentations, and pre-filed expert

1 witness testimony, expert reports, and affidavits.

2 **Q WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

3 A I have been retained by NewSouth Energy, LLC ("NewSouth"), a Calpine  
4 Corporation subsidiary, to offer my opinions on the advantages of competitive  
5 bidding and the development of rules requiring utilities to submit "Requests for  
6 Proposals" ("RFPs") to the market prior to obtaining or self-developing generation  
7 resources.

8 **Q HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?**

9 A My testimony is organized into the following sections:

- 10 • Section II: Summary of Recommendations
- 11 • Section III: Overview of Competitive Bidding
- 12 • Section IV: Wholesale Competition and Competitive Bidding Have  
13 Already Created Considerable Benefits in Today's Electricity Markets
- 14 • Section V: The Region Has Ample Generation Supplies and Can  
15 Support a Competitive Bidding Process.
- 16 • Section VI: Competitive Bidding Is a Common Regulatory Tool Used  
17 Throughout the U.S. and the Southeast
- 18 • Section VII: Characteristics of a Good Competitive Bidding Rule
- 19 • Section VII: Conclusions and Recommendations

20 **II. SUMMARY OF RECOMMENDATIONS**

21 **Q WOULD YOU PLEASE SUMMARIZE YOUR RECOMMENDATIONS?**

22 A I recommend the Commission find that, in principle, adopting a  
23 competitive bidding rule would be in the public interest and to issue an Order in

1 this docket that would move forward with a rulemaking proceeding that would  
2 explore the means by which a competitive bidding process could be developed  
3 that is in the best interest of South Carolina ratepayers.

4 **III: OVERVIEW OF COMPETITIVE BIDDING**

5 **Q WHAT IS COMPETITIVE BIDDING?**

6 A Competitive bidding is a type of search process developed to find the  
7 lowest cost good or service. In the electric utility industry, competitive bidding is  
8 also known as an “RFP process” or a “market-based mechanism” process.  
9 Regardless of the nomenclature, many firms in competitive industries go through  
10 similar competitive bidding processes in order to find the least cost opportunities  
11 available in the market. This type of search process is common in situations  
12 where it is difficult to obtain complete information about a particular good or  
13 service.

14 **Q WHY SHOULD A COMPETITIVE BIDDING PROCESS BE ADOPTED**  
15 **FOR A REGULATED INDUSTRY?**

16 A Often times, regulators have a challenge in determining the true, least-  
17 cost opportunity for resource acquisitions due to limited staffing, budgetary  
18 constraints, and the inability or unwillingness to “micro-manage” their regulated  
19 utilities. Utilities, on the other hand, often have relatively complete, or  
20 considerably more information about their cost structures and resource  
21 acquisition opportunities. This leads to a situation where one party to a  
22 transaction (the regulator) has less information than the other party (the  
23 regulated company) about the cost of providing service or securing new

1 resources. Competitive bidding has arisen in utility regulation as a means to  
2 balance this “asymmetry” in information between regulators and their regulated  
3 companies. By submitting resource acquisition decisions to the market,  
4 regulators can better insure they are getting the best deal for their ratepayers.

5 **Q WHAT BENEFITS WOULD A UTILITY GET BY BUILDING TOO MUCH**  
6 **CAPACITY OR ACQUIRING TOO MUCH CAPACITY?**

7 A Regulated utilities are allowed the opportunity to earn a fair rate of return  
8 on their investment. This investment is represented by a utility’s rate base, or the  
9 investment in plant that a utility has made to serve its ratepayers. The larger this  
10 “base,” the larger the total return that a Company will earn. Thus, while regulated  
11 utilities may not get any direct profits from the sale of electricity in some  
12 wholesale markets, they do continue to earn a return on their investment, which  
13 can become inflated or “gold plated” if not checked with some kind of market  
14 discipline. The regulated utility gets the further benefit of being insulated from  
15 market risk because the costs of the facility, if approved, are allowed the  
16 opportunity to be recovered in regulated rate base. Lastly, developing this risk-  
17 insulated excess utility generation capacity can tend to discourage competitive  
18 firms from making generating investments in a particular region. In the long run,  
19 this may reduce the number of competitive alternatives to ratepayers and any  
20 degree of market-discipline on incumbent utilities.

21 **Q HOW DOES COMPETITIVE BIDDING FIX THIS PROBLEM?**

22 A The competitive market provides a check on the type and costs of the  
23 investments made by regulated utilities. By offering a potential resource

1 acquisition to the market, a regulator can review all of the options and prices that  
2 compete with the utility self-build option or other resource acquisition proposal. If  
3 the utility proposal is lower in price, or more advantageous in other  
4 characteristics that can be included (i.e., resource flexibility, reliability, fuel  
5 diversity, etc.), then a regulator has some kind of assurance that it appropriately  
6 queried all other types of options possibly available to serve ratepayers.

7 **Q WOULD COMPETITIVE BIDDING BE LIMITED TO INSTANCES IN**  
8 **WHICH A UTILITY WAS ONLY CONSIDERING A SELF-BUILD OPTION?**

9 A No. Competitive bidding also gives regulators a range of options and  
10 checks with competitive resource options including purchased power agreements  
11 or other types of resource acquisitions. Competitive bidding is not limited to just  
12 self-build or re-powering options. It can be particularly useful when affiliate  
13 purchases are being considered.

14 **Q IN GENERAL, HOW DOES A COMPETITIVE BIDDING PROCESS**  
15 **WORK?**

16 A The first step should be for a utility to submit a need determination to its  
17 regulator, as well as its proposed method for meeting that need, such as building  
18 a new generating facility, or going straight to the market for a purchased power  
19 agreement (or both). The utility then develops a solicitation based upon this  
20 need. This solicitation should clearly outline the type and unique characteristics  
21 of the resource need, the non-price terms associated with the bid evaluation, and  
22 the characteristics and costs of the utility self-build option upon which the bid will  
23 be evaluated (if any). The solicitation, or "Request for Proposals" ("RFP") is then

1 submitted to a wide range of potential bidders, who, in turn, will be allowed to  
2 submit sealed offers if they meet the minimum criteria outlined in the RFP. The  
3 submitted bids are then reviewed under the oversight of an objective reviewing  
4 party that assists in selecting the least cost, most reliable offer submitted by the  
5 market. If the utility option is the lowest of those submitted, the utility is then  
6 directed to initiate construction and development of a new generation facility.

7 **Q WHAT BENEFITS DO RATEPAYERS GET FROM ADOPTING A RFP**  
8 **RULE?**

9 A An appropriately designed RFP process can help keep rates down for  
10 retail ratepayers by ensuring that only the least-cost resource is secured. Other  
11 important benefits for ratepayers include:

- 12 • Creating opportunities for risk management by offering greater supply  
13 options.
- 14 • Creating an environment favorable to supply diversity in terms of the  
15 number and type of generation suppliers.
- 16 • Creating an environment favorable to future generation investment,  
17 particularly from competitive firms.

18 **Q DOES AN RFP PROCESS MAKE THE COMMISSION'S JOB EASIER IN**  
19 **ANY WAY?**

20 A Yes. More information is usually better than less in the regulatory  
21 process. Having access to a wide range of market information about generation  
22 opportunities helps make the Commission's decision-making process easier in



1 evaluating resource options. Having a broad range of offers from the market  
2 helps the Commission “discover” the best alternative for ratepayers.

3 **Q HOW DOES AN RFP PROCESS DISCIPLINE REGULATED UTILITIES?**

4 A The RFP process ensures that regulated utilities develop the most cost  
5 effective generation resource option for ratepayers. If not, utilities will lose the  
6 generation development opportunity to their competitors. In theory, even if a  
7 utility wins every competitive bid offered to the market, the Commission can rest  
8 assured that the utility development was probably more cost effective than it  
9 would have been without the RFP process being in place. This outcome,  
10 however, would have to be dependent upon developing a fair, open, and  
11 objective RFP process.

12 **SECTION IV: WHOLESALE COMPETITION AND COMPETITIVE BIDDING**  
13 **HAVE ALREADY CREATED CONSIDERABLE BENEFITS IN TODAY’S**  
14 **ELECTRICITY MARKETS**

15 **Q HOW DO WHOLESALE MARKETS DIFFER FROM RETAIL MARKETS?**

16 A Retail markets are typically composed of end users. This would include  
17 residential, commercial, and industrial customers. Buyers in wholesale markets  
18 are not end-users, but entities that buy power as a type of aggregator on the  
19 behalf of its end-users. Further, these types of transactions are typically  
20 regulated by the FERC and non state regulatory commissions. Examples of  
21 wholesale customers include rural cooperatives, municipal utilities, and some  
22 investor-owned utilities. Exhibit DED-1 provides a breakout of the U.S.

1 wholesale market and shows the amount of wholesale power flows that have  
2 moved between these types of customers during 2004.

3 **Q WHAT TYPES OF COMPANIES MAKE SALES IN WHOLESALE**  
4 **MARKETS?**

5 A There are a number of companies that make sales in wholesale markets.  
6 These include independent power producers like NewSouth Energy, wholesale  
7 energy marketing companies, some rural generation cooperatives and municipal  
8 utilities, federal utilities and power marketing administrations, and traditional  
9 investor-owned utilities. The flows of wholesale power from these types of  
10 companies has also been shown in Exhibit DED-1.

11 **Q WHEN DID WHOLESALE POWER MARKETS BEGIN THE PROCESS**  
12 **OF BECOMING COMPETITIVE?**

13 A The process of wholesale competition began in earnest in the late 1970s  
14 with the passage of the Public Utilities Regulatory Policies Act ("PURPA"). This  
15 act, developed during the energy crisis of the late 1970s, was originally  
16 developed to reduce a number of considerable regulatory and utility barriers  
17 discouraging energy efficiency at industrial facilities.

18 **Q HOW DID PURPA MAXIMIZE ENERGY EFFICIENCY**  
19 **OPPORTUNITIES?**

20 One of the biggest opportunities for energy efficiency at industrial facilities during  
21 the last energy crisis was through cogeneration. In a cogeneration application,  
22 an industrial user captures waste heat for industrial production and power  
23 generation purposes. Hence the reason this engineering application is often

1 referred to as “combined heat and power” or “CHP.” Prior to PURPA it was not  
2 uncommon for industry to vent heat and steam to the environment, wasting  
3 valuable opportunities to capture this energy for power production or on-site  
4 production optimization. The capture of this waste heat increases efficiency  
5 since only one energy input (usually natural gas) is used to produce two energy  
6 outputs (heat and power) – explaining the reason why this application is often  
7 referred to as “co-generation.”

8 **Q THAT DOESN’T MAKE ANY SENSE. WHY WOULD INDUSTRY JUST**  
9 **WASTE THIS ENERGY DURING AN ENERGY CRISIS?**

10 Because there were simply too many utility and regulatory-created barriers to  
11 cogeneration to justify the investment. Remember that utilities are in the  
12 business to sell kWhs, any application that reduces the sale of kWhs generally  
13 reduces revenues. Thus, utilities usually did not have strong incentives to  
14 promote these types of applications. So, many industrial facilities experienced  
15 utility barriers in interconnection and in offering back-up power when the on-site  
16 power plant was unexpectedly shut down or down for maintenance. Further,  
17 many industrial plants did not want to run the risk of being regulated utilities.  
18 Industries are in the business of manufacturing goods and products, not power  
19 production. The conventional wisdom at the time suggested that if industrial sites  
20 generated electricity and sold it to the grid, they would become regulated utilities  
21 subject to the same regulatory terms and conditions as utilities.

22 **Q WHAT BARRIERS DID PURPA REMOVE?**

1 A The key provisions of PURPA (Section 210) removed three significant  
2 barriers to cogeneration. These included:

3 (1) Requiring utilities to interconnect with QFs and to provide standby,  
4 emergency, and interruptible power. Prior to PURPA utilities often  
5 used interconnection as a barrier to cogeneration development, and  
6 refused to provide backup power to industrial facilities during  
7 periods in which their facilities may be taken off line for planned or  
8 unplanned maintenance.

9 (2) Exempting cogenerators from traditional rate of return regulation.  
10 Most industrial facilities were in the business of manufacturing  
11 goods and products and did not want to be in the regulated power  
12 generation business. These industrial cogenerators were exempt  
13 from retail regulation so long as they served no retail customers.

14 (3) Providing a guaranteed market for cogenerated power. Under this  
15 provision, utilities are required to purchase electricity from a  
16 cogenerator (also known as a qualifying facility or "QF") at the  
17 utilities' avoided cost. This represented a dramatic departure from  
18 the typical pricing of electricity purchases by utilities which set  
19 purchased power rates at the cost of service from the supplying  
20 source. Under PURPA, purchased power rates would be based on  
21 the purchaser's rather than the supplier's cost. If a cogenerator  
22 could produce power at a cost lower than the utility, it could earn a  
23 profit by generating more efficient and economical electricity.

1    **Q     HOW DID PURPA MAKE THE INDUSTRY MORE COMPETITIVE?**

2    A     PURPA showed the regulated electric power providers were not the only  
3   game in town and that electricity could be generated economically and cost  
4   effectively by “non-utility generators” (or “NUGs”). As more and more of these  
5   cogenerators entered the market, the growth of NUG sources of power  
6   increased. In 1978, the year in which PURPA was passed, NUG power  
7   generation accounted for roughly three percent of all power generation in the  
8   U.S. By 1996, the year in which FERC adopted Order 888, non-utility generation  
9   accounted for almost 9 percent of total US generation – an increase of some 200  
10   percent.

11   **Q     WHAT ROLE DID STATE REGULATORS PLAY IN THE PURPA-**  
12   **IMPLEMENTATION PROCESS?**

13   A     The biggest role that state regulators played during this period was by  
14   making a number of decisions on how cogenerated electricity would be utilized  
15   and the rates (or “avoided costs”) which they would be paid. At first, most state  
16   regulatory commissions used administratively-determined avoided costs as a  
17   way of determining the appropriate rates for cogenerated electricity. Here,  
18   administratively determined avoided costs were those that were typically litigated  
19   in a traditional regulatory proceeding based on reams and reams of utility cost  
20   filings. Many regulators, however, found that as cost and markets changed  
21   throughout the 1980s, administratively-determined costs were not the most  
22   accurate way of pricing cogenerated electricity. In some instances, the  
23   regulatory process resulted in avoided cost determination well in excess of

1 market values. Further, the implementation of PURPA helped develop a non-  
2 utility generation market that did not exist in prior decades. Many regulators  
3 turned adopting competitive bidding processes as a way of determining the  
4 market value of generated electricity.

5 **Q WHY WAS PURPA IMPORTANT IN CREATING COMPETITIVE**  
6 **MARKETS?**

7 A It was important, and relevant to this proceeding, in two ways. First, it  
8 created new opportunities for power generation supply. Today's IPPs are the  
9 direct legacy of the cogeneration projects developed in the early 1980s. In fact,  
10 the Columbia Energy Facility, owned and developed by NewSouth Energy here  
11 in South Carolina, facilitates the same type of CHP application that first created  
12 competitive market opportunities for NUGs over twenty years ago. Second,  
13 regulatory experience developed during PURPA gave regulators some  
14 experience in dealing with non-utility developers of power, as well as developing  
15 the tools for soliciting power from these types of power including competitive  
16 bidding.

17 **Q DID CONGRESS RECOGNIZE THE COMPETITIVE IMPLICATIONS OF**  
18 **PURPA?**

19 A Yes. It did not take long for Congress to appreciate that one of the  
20 unintended consequences of the development of PURPA was that the power  
21 generation market in the U.S. was becoming increasingly more competitive.  
22 Recognizing this, Congress created further opportunities for opening wholesale  
23 power markets through the passage of the Energy Policy Act of 1992 (or

1 "EPAAct"). Title 7 of EPAAct authorized the Federal Energy Regulatory  
2 Commission ("FERC") to require regulated utilities to open their transmission  
3 systems for third party transportation.

4 **Q HOW DID FERC FOLLOW UP ON THIS LEGISLATION?**

5 A EPAAct was the legislation actually precipitating the development of Order  
6 888, FERC's hallmark rule opening the nation's power transmission grid and with  
7 it, wholesale electricity markets. Order 888, and its companion Order 889, were  
8 promulgated in 1996, and established a comprehensive set of rules, tariff filings,  
9 and institutions that set the basis for governing competitive wholesale markets in  
10 the U.S. While there have been a number of attempts to reinforce the purposes  
11 and goals of this Order over the past decade, it still serves as the backbone of  
12 how competitive markets are organized and operated.

13 **Q WHAT DID ORDER 888 AND 889 DO FOR COMPETITIVE**  
14 **WHOLESALE MARKETS?**

15 A The main purpose of both of these Orders has been to establish a national  
16 framework for opening wholesale markets on equal and non-discriminatory  
17 terms. Under this framework, utilities are required to provide transmission  
18 access and service to all competitors on the same terms, conditions, and prices  
19 that it offers to itself, or its affiliates.

20 **Q IT HAS BEEN ALMOST A DECADE SINCE ORDER 888, HOW WOULD**  
21 **YOU ASSESS THE CHANGES IN WHOLESALE POWER MARKETS?**

22 A Overall, wholesale markets have become increasingly more competitive  
23 and ratepayers throughout the U.S. have received considerable benefits from this

1 increased competition and efficiency. This is especially true for ratepayers in the  
2 southeast, who had the opportunity of enjoying the benefits of lower-cost and  
3 more efficient power generation, without the risk of opening markets to retail  
4 competition.

5 **Q HOW ARE BENEFITS CREATED IN MORE COMPETITIVE**  
6 **WHOLESALE MARKETS?**

7 A Wholesale market benefits are created by the development and operation  
8 of generation assets in a more cost effective and efficient manner. Generally,  
9 there are three types of efficiency opportunities that have materialized over the  
10 past several years in wholesale power markets:

11 (1) The dynamics of market changes have forced many regulated  
12 utilities to operate their facilities in a more efficient manner by  
13 making capital investments to increase operational efficiency,  
14 through the more efficient procurement or use of fuel, or by  
15 increasing the capacity utilization of their facilities. These benefits  
16 have occurred in most areas, even those that have not been  
17 opened to retail choice.

18 (2) The regulatory process has forced the divestiture of many  
19 generation assets. Numerous others have been sold voluntarily.  
20 Regardless, new ownership changes at these facilities have  
21 resulted in new operating practices leading to increased efficiencies  
22 not attained by their former regulated utility owners.



1           (3)    New, state of the art generation technologies have been developed  
2                    by both competitive IPPs and utilities that have dramatically  
3                    increased overall power generation efficiencies and reduced costs.  
4                    For instance, the Jasper Generation Facility developed by SCE&G  
5                    uses technologies and a project configuration similar to most  
6                    competitive power developers.

7   **Q     HAVE ANY STUDIES ATTEMPTED TO ESTIMATE THESE POTENTIAL**  
8   **BENEFITS?**

9   A     Yes. Over the past several years, a number of studies have provided  
10       estimates indicating considerable ratepayer benefits form competitive wholesale  
11       markets since Order 888. Some of the more widely recognized studies include:

12       (1)    One conducted by Boston Pacific on the behalf of the Electric  
13               Power Supply Association ("EPSA").

14       (2)    One conducted by the U.S. Department of Energy (DOE).

15       (3)    One conducted by Global Insight on the behalf of a number of IPPs  
16               and marketers.

17       (4)    An analysis conducted Standard & Poors (S&P) in reviewing  
18               wholesale market changes for investors.

19   **Q     LET'S TURN TO THE FIRST STUDY YOU REFERENCE.  WHAT**  
20   **BENEFITS DID THE BOSTON PACIFIC STUDY FIND?**

21   A     Boston Pacific conducted a number of studies on the behalf of EPSA that  
22       examines the changes created by competition in power markets since the mid-  
23       1980s. Clearly, retail choice was not allowed at this point, so the gains from

1 competition during this period would have to be created through increased  
2 pressure associated with wholesale competition, as well as the threat that  
3 competition created by regulators and legislation during the late 1990s and early  
4 2000. The initial study conducted by Boston Pacific was completed in 2001. An  
5 update to the study was completed in 2003. The update produced results similar  
6 to the original study and found that electricity prices for residential ratepayers in  
7 the U.S. had fallen by some 34 percent during the period 1985-2002.

8 **Q HAS THE DEPARTMENT OF ENERGY NOTED ANY BENEFITS**  
9 **ASSOCIATED WITH COMPETITIVE MARKETS?**

10 A The U.S. DOE has conducted a number of studies on electric restructuring  
11 and the potential gains from wholesale power markets. In a study conducted on  
12 the nation's power transmission grid, DOE noted that "our U.S. transmission  
13 system facilitates wholesale electricity markets that lower consumers' electricity  
14 bills by nearly \$12 billion annually." [U.S. Department of Energy, National  
15 Transmission Grid Study (2002): xi.]

16 **Q WHAT ABOUT THE GLOBAL INSIGHT STUDY YOU REFERENCED**  
17 **EARLIER?**

18 A This past summer (July 2005), Global Insight published findings on a  
19 study examining the potential gains in wholesale competition from the period  
20 1999-2003. Overall, the study found:

- 21 • Customers realized some \$15.1 billion in value from wholesale  
22 electricity competition. These are gains achieved in the Eastern  
23 Interconnect alone and do not include those achieved in the

1 Western Interconnect or the Electric Reliability Council of Texas  
2 (“ERCOT”).

3 • Competition dramatically increased the operating efficiency of  
4 power plants, particularly coal and nuclear facilities. These gains  
5 were attained by increased plant performance and capacity factor  
6 improvements.

7 **Q HAS ANY INVESTOR RESEARCH FIRMS EXAMINED THE BENEFITS**  
8 **OF WHOLESALE COMPETITION AND INCREASED GENERATOR**  
9 **EFFICIENCY?**

10 A Yes. In its investigation on the impacts of changes in wholesale regulation  
11 associated with FERC’s proposed standard market design policies, S&P noted  
12 that competitive markets, and competitive providers of power in this market, have  
13 already delivered considerable consumer value. Specifically, S&P notes that:

14 ...merchant energy has delivered some of the intended benefits of  
15 deregulation. Power plants formerly owned by utilities, especially  
16 the older nuclear and coal fired facilities, are now operating at much  
17 higher availabilities and capacity factors under their new owners.  
18 Wholesale power costs have fallen, albeit they are more  
19 predisposed to volatility than before. And ratepayers are not paying  
20 for the tremendous overcapacity in generation that characterizes  
21 the industry, as they did in the past; lenders and equity investors  
22 are now shoulder those costs. [Peter Rigby, “Merchant Energy

1 Survival Hangs on FERC's Blueprint for Market Design." March  
2 2003.]

3 **Q IN REVIEWING THE CHALLENGING ENVIRONMENT FOR**  
4 **INDEPENDENT ENERGY PROVIDERS, DID S&P NOTE THAT COMPETITIVE**  
5 **WHOLESALE MARKETS WERE SUSTAINABLE OVER THE LONG RUN, OR**  
6 **THAT THE MARKET WOULD FAIL AND REVERT TO REGULATION?**

7 A S&P noted that wholesale markets were likely to be maintained into the  
8 future. S&P advised investors that these wholesale power markets have  
9 expanded considerably over the past decade and it would be hard to "put the  
10 genie back in the bottle," so to speak. Specifically, S&P notes:

- 11 • Vertically integrated utilities already get about 51 percent of their power  
12 from the competitive wholesale market, according to Platt's data.
- 13 • Public power and cooperatives also procure about 44 percent and 77  
14 percent, respectively, of their power from competitive wholesale markets.
- 15 • The manufacturing supply side of the business have delivered highly  
16 efficient power-generating equipment and other innovations.
- 17 • Competitive power markets are already operating well in parts of the  
18 country, such as PJM (Pennsylvania-New Jersey-Maryland Power Pool).
- 19 • Finally, one need only look to the legacy of regulated, cost-of-service  
20 power, which includes \$2 billion (net of a \$2 billion write-down) in rate  
21 base treatment for a nuclear power plant in Long Island that never went  
22 into service, as an extreme of what cost-of-service can mean.

1    **Q     HAS THE SOUTHEAST SEEN ANY WHOLESALE MARKET**  
2    **EFFICIENCY GAINS THAT ARE COMPARABLE TO THOSE IDENTIFIED IN**  
3    **ANY OF THESE STUDIES?**

4    A     Yes. Exhibit DED-2 shows the recent trends in regional wholesale power  
5    markets over the past several years. The graph shows the implied market  
6    clearing heat rate. A low heat rate entails an efficient market. A downward trend  
7    in the series presented in the graph indicates markets becoming more efficient  
8    because, based on the prices offered in the market, the implied marginal unit (the  
9    one dispatched to clear the market) uses a relatively low amount of energy per  
10   kWh generated. The graph clearly indicates that market clearing heat rates for  
11   the Southern Company area have been decreasing. Over the period, these  
12   market clearing heat rates have fallen by over 25 percent – indicating a dramatic  
13   increase in efficiency in the region. These increased efficiencies translate to  
14   lower costs for consumers for their wholesale power.

15   **Q     HOW DOES COMPETITIVE BIDDING TAKE ADVANTAGE OF THESE**  
16   **COMPETITIVE OPPORTUNITIES?**

17   A     Competitive bidding allows regulators to secure the best of both worlds  
18   without having to totally reform retail markets in the manner that numerous states  
19   have done since the early 1990s. Competitive bidding allows ratepayers to attain  
20   the efficiency gains in competitive wholesale markets without have the risk of  
21   opening retail markets to competition. If developed in a balanced fashion,  
22   competitive bidding clearly offers ratepayers a “win-win” opportunity. Namely,  
23   competitive bidding allows ratepayers to secure low priced competitive wholesale

1 power under the terms, conditions, and protection provided by regulatory  
2 oversight.

3 **Q WHAT OTHER BENEFITS DOES COMPETITIVE BIDDING OFFER**  
4 **RATEPAYERS?**

5 A Generally, utilities can be thought of as regulated managers of a portfolio  
6 of generation assets on behalf of its ratepayers. In some instances, the utility will  
7 own the resources included in this portfolio, in other instances, some share of  
8 this supply portfolio can be secured from other providers of electricity. These  
9 sources of electricity can go beyond just the “bricks and mortar” of owning a  
10 plant, and can itself, include a portfolio of short, intermediate, and long term  
11 generation contracts. Embedding competitive bidding into all facets of this  
12 portfolio management creates the opportunity for price discovery and supply  
13 competition, as well as the ability to optimize the value of any generation portfolio  
14 by identifying, valuing, and shifting risk away from ratepayers to parties that are  
15 better positioned to assume such risks.

16 **SECTION V: THE REGION HAS AMPLE GENERATION SUPPLIES AND CAN**  
17 **SUPPORT A COMPETITIVE BIDDING PROCESS**

18 **Q IS THERE A CONSIDERABLE AMOUNT OF INDEPENDENT POWER**  
19 **CAPACITY DEVELOPMENT IN SOUTHEAST THAT THE COMMISSION**  
20 **COULD RELY UPON FOR INITIATING A COMPETITIVE BIDDING PROCESS?**

21 A Yes. It is a well-recognized fact that SERC is one of the most highly  
22 developed regions for independent power producer (“IPP,” “independent,” or  
23 “merchant”) generation in the U.S. Exhibit DED-3 shows this development with a

1 map of existing IPP facilities in the SERC region. This independent development  
2 is further summarized in tabular form in Exhibit DED-4. Currently, there are 56  
3 non-peaking IPP facilities with 30,537 MW of generation capacity in the SERC  
4 region. In addition, there is 13,259 MW of capacity that is under construction or  
5 planned for the next 5 years.

6 **Q HOW IS THIS DEVELOPMENT DISTRIBUTED WITHIN SERC?**

7 A As shown in Exhibit DED-4, there are four sub-regions in the SERC:  
8 Entergy; Southern Company; the Tennessee Valley Authority ("TVA"); and the  
9 Virginia-Carolinas Reliability Region ("VACAR"). Currently, the Entergy sub-  
10 region has 13,660 MWs of non-peaking independent generation capacity, the  
11 Southern Company sub-region has 7,548 MW, TVA sub-region has 4,156 MW,  
12 and VACAR sub-region has 5,173.

13 **Q ARE THERE ANY INDEPENDENT FACILITIES THAT ARE**  
14 **CURRENTLY UNDER CONSTRUCTION?**

15 A Yes. In addition to existing IPP generation, there are a number of  
16 independent generators that are located in the region, currently under  
17 construction, and scheduled to come on-line prior to 2010. Exhibit DED-5  
18 provides a map of these facilities throughout the southeast. Currently, there are  
19 6 facilities under construction in the region, amounting to 4,542 MW of additional  
20 potential capacity.

21 **Q WHAT ABOUT FACILITIES UNDER DEVELOPMENT?**

22 A There are also a number of independent facilities that are considered to  
23 be "under development." A number of these facilities are speculative at this time,

1 and given current market conditions, are probably not likely to get built without  
2 some kind of firm contract for the plant output. Nevertheless, as shown in Exhibit  
3 DED-6, there are 12 facilities under development in the southeast, amounting to  
4 approximately 8,717 MW of capacity.

5 **Q HOW MUCH INDEPENDENT CAPACITY HAS TAKEN PLACE IN THE**  
6 **VACAR SUB-REGION?**

7 A Currently, there are 16 independent plants with a total of 5,173 MW of  
8 generating capacity operating in the VACAR sub-region. There is one plant  
9 currently under construction in the region, accounting for 578 MW, and three  
10 plants totaling 1,930 MW that have been proposed. A map of the VACAR sub-  
11 region development has been provided in Exhibit DED-7.

12 **Q SO DO YOU SEE GENERATION MARKETS IN THE SOUTHEAST AS**  
13 **BEING LIMITED?**

14 A No. All told, there is considerable development, and still more potential  
15 development in this market. Exhibit DED-8 combines all of the types of facilities  
16 discussed earlier into one map.

17 **Q WHAT DOES ALL THIS IPP GENERATION AVAILABILITY MEAN FOR**  
18 **YOUR COMPETITIVE BIDDING PROPOSAL?**

19 A There is a considerable amount of capacity throughout the southeast that  
20 would be interested in serving South Carolina's generating needs. In fact, some  
21 of this development is located in South Carolina and has already created a  
22 number of considerable benefits for the state in terms of the increased local  
23 spending, increased employment, and an increased property and sales tax base.



1 The Commission has the opportunity to increase these benefits to ratepayers by  
2 allowing these independent power plants to compete for the South Carolina's  
3 resource requirements. Competitive bidding will ensure that the lowest cost  
4 resource is used to serve ratepayer needs.

5 **Q HOW MANY INDEPENDENT FACILITIES HAVE BEEN DEVELOPED IN**  
6 **SOUTH CAROLINA?**

7 A There are three independent facilities in South Carolina totaling 1,770 MW  
8 of nameplate capacity. The Broad River Energy Center, located in Gaffney, is a  
9 985 MW (796 Summer MW) peaking facility with five CTs in simple cycle  
10 configuration. The Columbia Energy Center is a nominal 684 MW (580 Summer  
11 MW), combined cycle, cogeneration facility. And, Cherokee County Cogen, is a  
12 combined cycle facility located in Gaffney with a nameplate rating of 101 MW (95  
13 Summer MW).

14 **Q DO COMPETITIVE PROVIDERS CREATE ANY ECONOMIC BENEFITS**  
15 **IN THE COMMUNITIES IN WHICH THEY LOCATE?**

16 A Yes. Independent power providers create significant economic benefits in  
17 the communities in which they locate. Like comparable regulated utility  
18 generation investments, most of the economic development benefits associated  
19 with the construction and operation of independent power generation facilities are  
20 a function of the technology and total investment dollars associated with a  
21 particular project. With the exception of a few differential tax benefits between  
22 regulated utility property and general property, the overall economic benefits (i.e.,  
23 output, employment, wages) associated with power generation projects are not

1 usually a function of the type of provider developing the facility (i.e., independent  
2 versus utility). Thus, competitive independent power developers bring many of  
3 the same local benefits offered by regulated utilities.

4 **Q WHAT BENEFITS HAS NEWSOUTH ENERGY CREATED FOR THE**  
5 **SOUTH CAROLINA COMMUNITIES IN WHICH IT IS LOCATED?**

6 A NewSouth Energy, through its parent company Calpine Corporation, has  
7 developed two facilities in South Carolina. One of these facilities ("Columbia  
8 Energy") is located in Calhoun County. The second is the Broad River facility  
9 located in Cherokee County. The Governor, industry and state and local officials  
10 applauded the significant investments in these areas at the time of their  
11 development. The projects create a number of one-time and ongoing economic  
12 benefits for South Carolina – both projects represent close to \$700 million in  
13 direct capital investments. In 2003, NewSouth (Calpine) paid some \$2 million in  
14 property taxes and \$3 million in wages and benefits. NewSouth (Calpine) has  
15 also made a number of charitable contributions to the local communities, in  
16 addition to numerous volunteer hours to support local organizations.

17 **Q DO OTHER COMPETITIVE DEVELOPERS PROVIDE SIMILAR TYPES**  
18 **OF BENEFITS?**

19 A Yes. It has been my experience in looking at the development of  
20 competitive facilities throughout the southeast that independent power providers  
21 bring considerable benefits to local communities, on par with those I noted earlier  
22 that NewSouth has provided to the communities in which it operates.

1 **SECTION VI: COMPETITIVE BIDDING IS A COMMON REGULATORY RULE**  
2 **USED THROUGHOUT THE U.S. AND THE SOUTHEAST**

3 **Q IS COMPETITIVE BIDDING A NEW IDEA IN STATE UTILITY**  
4 **REGULATION?**

5 A No, competitive bidding has existed for a number of years and has been  
6 employed by several states because it ultimately offers a number of benefits for  
7 regulated ratepayers. As I noted earlier in my testimony, the most common use  
8 of competitive bidding in the electric power industry occurred in the late 1970s  
9 and early 1980s. The original purpose of competitive bidding was to ease the  
10 burden of administratively determining avoided costs when dealing with  
11 qualifying facilities ("QFs") allowed under the Public Utilities Regulatory Policies  
12 Act ("PURPA"). At that time, competitive bidding was used to check the market  
13 to determine the appropriate avoided costs. One of the first rules was  
14 developed in 1984 so that Central Maine Power Company would only have to  
15 purchase QF power that was appropriately valued. Since that time, numerous  
16 Commissions have allowed competitive bidding to occur either through rule or  
17 voluntary use by their regulated utilities. Between 1984 and 1996, utilities  
18 requested bids for close to 40,000 MWs of new generating capacity. [Nuclear  
19 Energy Institute, Restructuring the Electric Power Industry, July 2000.] During  
20 this period (1984-1996), utilities received some 420,000 MWs in bids from  
21 independent power producers ("IPPs") – or 11 times the amount request.

22 **Q HAVE ANY STATES IN THE SOUTHEAST ADOPTED COMPETITIVE**  
23 **BIDDING RULES?**

1 A Yes. Several southeastern states have adopted rules or policies on  
2 competitive bidding. A summary of these rules in the Southeast are provided in  
3 Exhibit DED-9. Currently, Florida, Georgia, and Louisiana have competitive  
4 bidding rules. Alabama has a competitive bidding policy. Arkansas has opened  
5 a competitive bidding proceeding in the past, but it is currently under suspension.

6 **Q HAS THE DEVELOPMENT OF COMPETITIVE BIDDING RULES IN THE**  
7 **SOUTHEAST BEEN RELATIVELY STATIC OVER THE LAST FEW YEARS?**

8 A No. The development of the competitive bidding process in the southeast  
9 has been an evolutionary process in most every state. Those that have  
10 promulgated rules are still revising and revisiting these rules in order to calibrate  
11 them with actual experiences and opportunities for improvement. Some states in  
12 the southeast have moved further along in this process than others. Regardless  
13 of the changes, or any one particular shortcoming in any states' rule, one theme  
14 has been true in most of the states that adopted market based mechanisms:  
15 competitive bidding is an appropriate process for evaluating utility resource  
16 proposals and should continue and improve as situations warrant.

17 **Q WOULD YOU PLEASE DISCUSS THE FLORIDA RULE?**

18 A Florida was the first state in the southeast to adopt a competitive bidding  
19 rule in 1994. The Florida Public Service Commission ("FPSC") competitive  
20 bidding rules require all regulated utilities to thoroughly examine the market,  
21 through an RFP process, prior to submitting any generation request to the FPSC.  
22 This RFP process has been developed to mesh with the overall need  
23 determination statutes currently in effect in Florida.

1   **Q.    WHAT ARE SOME OF THE BASIC FEATURES OF THE FLORIDA RFP**  
2   **REQUIREMENTS?**

3   A.    The FPSC rule explicitly requires that no terms included in any RFP  
4   submitted to the market be unfair, unduly discriminatory, onerous, or  
5   commercially infeasible. Ratepayers benefit from this open process because it  
6   ensures a greater degree of objectivity than allowing utilities to define terms and  
7   conditions for RFPs that may stifle participation and bias a generation selection  
8   towards a self-build option. An open and active process ensures that a large  
9   number of resources are available for consideration, and that the best resource  
10  available is selected for ratepayers.

11  **Q    WHAT TYPES OF INFORMATION ARE UTILITIES REQUIRED TO**  
12  **PROVIDE IN THEIR RFPS?**

13  A    Florida has a considerable number of informational requirements for  
14  utilities when they submit RFPs to the market. The purpose of these  
15  requirements is to ensure a transparent process, which in turn, leads to a  
16  process that is perceived as being more credible by the market. Ratepayers  
17  benefit from this credibility because more bidders are willing to participate. Some  
18  of the informational requirements facilitating this transparency under the Florida  
19  rule include:

- 20       • A detailed technical and economic description of the utility self-build option  
21       under consideration. This includes providing such information as the size  
22       of the unit, its estimated commercial operation date, its total direct costs,

1 annual revenue requirements, variable operation and maintenance  
2 expenses, among other informational requirements.

3 • A description of the price and non-price factors upon which bid will be  
4 evaluated. This would include, but is not limited to technical and financial  
5 viability, dispatchability, deliverability (interconnection and transmission);  
6 fuel supply, water supply, environmental compliance, performance criteria  
7 and pricing structure.

8 • A detailed description of the criteria and the methodology to be used to  
9 evaluate alternative generating proposals (both price and non-price  
10 terms).

11 • Providing the best available information regarding system-specific  
12 conditions which may include, but not be limited to, preferred locations  
13 proximate to load centers, transmission constraints, the need for voltage  
14 support in particular areas, and/or the need or desire for greater diversity  
15 of fuel sources.

16 **Q HOW ARE BIDS REVIEWED UNDER THE FLORIDA RULE?**

17 A The Florida rules require regulated utilities to evaluate received proposals  
18 in a fair manner relative to its own generating unit identified in the RFP. The utility  
19 is not allowed to modify the construction costs and/or performance parameters  
20 affecting revenue requirements for the planned generating unit included in the  
21 RFP. However, if it does, it must inform participants of its intent, and provide the  
22 participants (limited to the remaining finalists) a corresponding opportunity to  
23 revise their bids.

1    **Q     WOULD YOU PLEASE DISCUSS THE LOUISIANA COMPETITIVE**  
2    **BIDDING RULE?**

3    A.     Yes. The Louisiana Public Service Commission (“LPSC”) adopted rules for  
4    competitive bidding that were finalized in early 2004. In developing these rules  
5    the LPSC directed its Staff to open a docket to consider the adoption of a market-  
6    based mechanism to demonstrate that generation added by regulated utilities is  
7    the least cost alternative and in the public interest. The LPSC determined that  
8    utilities under its jurisdiction must employ a market-based mechanism, or an  
9    RFP, to support the addition of new generating capacity or purchased power.

10   **Q     WHAT MOTIVATED THE LPSC TO ADOPT A COMPETITIVE BIDDING**  
11   **RULE?**

12   A.     In December 2001, the LPSC issued an order declining to proceed with  
13   retail access. Prior to this time, in part due to the uncertainties associated with  
14   retail access, utilities were filling their capacity requirements with short-to-  
15   intermediate purchases. Some of these capacity purchases were at relatively  
16   high prices. Consequently, with the deferment of retail access, and the need for  
17   additional generating resources, the Commission found that it was necessary to  
18   establish a market-based mechanism for the procurement of additional  
19   generating resources.

20   **Q     WHAT TYPE OF INFORMATION IS SHARED WITH PARTICIPANTS IN**  
21   **THE LOUISIANA COMPETITIVE BIDDING PROCESS?**

22   A     In order to implement the market-based mechanism, the LPSC required  
23   that utilities submit an informational filing with the Commission containing many

1 of the same types of information outlined in the Florida rule. This includes, but is  
2 not limited to, the following information:

- 3 • A description of the capacity addition including timing, amount and type.
- 4 • If a self-supply (affiliate supply) option is under consideration, the utility is  
5 required to provide detailed estimates of the resource's cost, revenue  
6 requirement impacts and supporting documentation.
- 7 • Information supporting the amount of capacity needed and proposes  
8 resources to be acquired.
- 9 • Supporting documentation justifying the type of resources which the  
10 electric utility proposes or expects to construct and/or acquire; along with  
11 resource alternatives rejected.
- 12 • The utility's proposed schedule for the RFP and resource acquisition  
13 process.
- 14 • A description of the methods and criteria that will be used to evaluate RFP  
15 bid responses.
- 16 • A description of any prerequisites or preferences regarding transmission  
17 arrangements and deliverability of the power supply to customers.
- 18 • A description of the methods and safeguards the utility will use to protect  
19 the confidentiality of bids and bidder information.
- 20 • If the utility's RFP permits affiliate bids, a description of how the utility's  
21 evaluation process will not give preference to its independent affiliate.
- 22 • A draft purchase power agreement or a description of key contract  
23 elements.



- 1       • A draft of the RFP that will be submitted to the market.

2   **Q     ARE THERE ANY OTHER UNIQUE ASPECTS OF THE LOUISIANA**  
3   **RULE?**

4   A     Yes, the Louisiana rule requires utilities seeking a resource addition, and  
5   going through an RFP process, to hold technical conferences with the LPSC's  
6   Staff and participating stakeholders to review the utility's filing. After the technical  
7   conference, the utility is permitted to proceed with the RFP process.

8   **Q.    HOW IS INDEPENDENCE MAINTAINED IN THE LOUISIANA**  
9   **PROCESS?**

10   A.    The Louisiana rule requires an independent monitor ("IM") be hired by the  
11   utility to examine the bid process. The utility is required to inform the LPSC of  
12   the selection of the IM. The Commission may reject the utility's selection and  
13   request that it submit another choice. The IM is charged with reviewing and  
14   tracking the utility's conduct during the RFP process to determine if there was  
15   any undue preference given to affiliates and their bids, self-build, or self-supply  
16   projects. The IM is to notify the Staff of the LPSC of any irregularities in the RFP  
17   process and is to submit an evaluation report to the Staff and the LPSC.

18   **Q     DOES THE IM MAKE A DECISION ABOUT WHICH BID TO SELECT?**

19   A     No. The IM is there to simply ensure the independence of the process.  
20   The utility ultimately makes the resource selection decision, and then submits  
21   that proposal to the Commission for approval. A technical conference to  
22   examine the results of the competitive bidding process may be held if requested

1 by the LPSC's Staff. These results are provided to the LPSC's Staff and  
2 participating organizations, subject to confidentiality requirements.

3 **Q WHAT INFORMATION IS REQUIRED TO BE PROVIDED TO BIDDERS**  
4 **AT THE END OF THE PROCESS?**

5 A If requested, a utility is required to explain to bidders why their offers were  
6 rejected. The explanation must explain: (1) if the bid was rejected due to its  
7 failure to meet RFP requirements and the requirements that were failed; (2) if the  
8 bid was judged to be conforming, but was rejected due to a technical or business  
9 flaw(s) it must explain what those flaw entailed; and/or (3) if the bid was found to  
10 be conforming and technically satisfactory, but was rejected on the basis of  
11 economics.

12 **Q. WHAT ARE THE GEORGIA COMMISSION'S COMPETITIVE BIDDING**  
13 **RULES?**

14 A. The Georgia Public Service Commission's ("GPSC") competitive bidding  
15 rules are part of its overall Integrated Resource Plan ("IRP") process. The  
16 Georgia rule requires each electric utility to issue an RFP for each block of  
17 required new resources identified in the IRP, with a few limited exceptions.

18 **Q. WHAT ARE THE KEY ELEMENTS OF THE GEORGIA COMMISSION'S**  
19 **RFP PROCESS?**

20 A. The GPSC's rules are quite extensive. Generally, provisions in the rule  
21 include:

- 22 • An independent evaluator ("IE") will be used in conjunction with the Staff  
23 of the GPSC to participate fully in the RFP process. The IE will be retained

1 by the utility, but to ensure independence it will be selected by and report  
2 to the GPSC.

3 • The utility is responsible for preparing a draft of the RFP, including RFP  
4 procedures, evaluation factors, credit and security obligations, a proforma  
5 power purchase agreement, the inclusion of any “proxy price” against  
6 which the soliciting entity wishes to have the RFP bids tested, information  
7 on the Southern Company OASIS, and a solicitation schedule.

8 • Drafts of the RFP will be posted on the GPSC’s website.

9 • The Staff and the IE will critique the initial draft of the RFP which will also  
10 be posted on the GPSC’s website. The utility may incorporate suggestions  
11 made by the Staff and the IE.

12 • A bidders conference on the draft RFP is allowed, but not required.

13 • After input from the bidders conference, the Staff and the IE will file a  
14 formal recommendation with suggested changes to the RFP. This will also  
15 be posted on the website.

16 • The utility will submit a final RFP for approval or modification by the  
17 GPSC. The final RFP will be posted on the IE’s website for access by the  
18 final bidders list.

19 • If the utility wishes to consider ownership of a self-build option, it must  
20 submit its construction proposal to the IE at the time of all other bids.

21 • The evaluation process of the RFP is conducted by the utility and the Staff  
22 and the IE. In conducting its analysis, the utility must use a total cost

1 impact analysis. The Staff and the IE have discretion in how they evaluate  
2 and audit the bids.

3 • The utility, the Staff and IE each make an independent selection of a  
4 bidder to fulfill the resource requirements. If the two do not reach the same  
5 conclusion, the utility may consider the Staff and IE evaluation, but it is not  
6 required to.

7 • The utility is responsible for determining which resources it will submit to  
8 the GPSC for certification.

9 • The Staff and the IE will participate in the certification proceeding and the  
10 GPSC will make the final determination as to what resource(s) should or  
11 should not be added to the utility's generation. (Georgia Public Service  
12 Commission, General Rules 515-3-4-04.)

## 13 **SECTION VII: CHARACTERISTICS OF A GOOD COMPETITIVE BIDDING**

### 14 **RULE**

#### 15 **Q WHAT MAKES A GOOD COMPETITIVE BIDDING RULE?**

16 A There are a number of factors which contribute to a good competitive  
17 bidding rule. These include developing a rule that is:

18 (1) Consistent and complements the existing utility planning process;

19 (2) Expeditious yet deliberate;

20 (3) Transparent;

21 (4) Maintains confidentiality;

22 (5) Flexible;

23 (6) Objective; and

1           (7)     Independent.

2     **Q     LET’S TURN TO THE FIRST FACTOR, CONSISTENCY WITH THE**  
3     **EXISTING PROCESS.     HOW WOULD COMPETITIVE BIDDING BE**  
4     **INCORPORATED INTO THE EXISTING SOUTH CAROLINA PLANNING**  
5     **PROCESS?**

6     A     Any competitive bidding rule would need to be reconciled with the “Utility  
7     Facility Siting and Environmental Protection Act.” [Chapter 33, South Carolina  
8     Code.] This Act defines the general terms and conditions that utilities must follow  
9     in order to add new generating capacity (or transmission) and serves what is  
10    commonly referred to as a “need determination” statute in other states. In  
11    addition to regulated utilities, independent power producers, like NewSouth  
12    Energy, are also subject to the regulatory requirements outlined in this Act. The  
13    Act generally governs the process by which new generating resources are  
14    reviewed. An important part of this process is ensuring that: (1) there is a need  
15    for new generation (or transmission) resources; (2) that a wide range of  
16    alternatives have been considered; (3) that the resource addition will not have a  
17    negative environmental impact; (4) that the resource addition is generally in the  
18    public interest.

19    **Q     WHERE SPECIFICALLY IN THE STATUTE, DO YOU SEE AN**  
20    **OPPORTUNITY TO INCORPORATE A COMPETITIVE BIDDING**  
21    **REQUIREMENT?**

22    A     Section 58-33-160(1)(c) notes that the Commission, in evaluating a  
23    generation resource proposal, should consider “...the state of available

1 technology and the nature and economics of the various alternatives and other  
2 pertinent considerations.” Clearly, checking the market for other alternatives to  
3 self-build options would fall into the category of “other alternatives.” A  
4 competitive bidding rule could be promulgated as the specific requirement each  
5 utility should follow in order to meet this statutory standard.

6 **Q HAS THE COMMISSION CONSIDERED RFPS IN PAST NEED**  
7 **DETERMINATION PROCEEDINGS?**

8 A Yes. In the South Carolina Electric & Gas (“SCE&G”) Urquhart  
9 Repowering Investigation (Docket No. 2000-170-E) the Company conducted an  
10 RFP process prior to developing a self-build (repowering) option. This RFP was  
11 not required by the South Carolina Commission at that time. Ultimately, SCE&G  
12 decided to develop a repower project rather than facilitate any bids from the  
13 market.

14 **Q WOULDN’T THIS SUGGEST THAT A RULE ISN’T NEEDED?**

15 A No, because there are no explicit requirements that a South Carolina  
16 regulated utility use a competitive bidding process in each and every instance a  
17 generation resource is being considered and proposed. Under current practices,  
18 the use of a competitive bidding process is completely at the discretion of the  
19 utility. As I noted in my testimony in the last SCE&G rate case, the Company did  
20 not solicit the market prior to requesting a certificate for developing the Jasper  
21 generation facility despite the fact that market conditions had changed  
22 dramatically since the time of its last RFP (1999).

1   **Q     ARE THERE ANY OTHER PROBLEMS WITH NOT HAVING A**  
2   **FORMALIZED RULE PROCESS?**

3   A     Yes, without a formalized rule, not only is the need to issue an RFP at the  
4   utility's discretion, but the terms and conditions of the RFP are also at its  
5   discretion. All of the conditions that I listed earlier like objectivity, independence  
6   and flexibility, among other factors, would be dealt with in any fashion deemed  
7   appropriate by the utility.

8   **Q     WOULD YOU DESCRIBE WHAT YOU SEE AS THE RELATIONSHIP**  
9   **BETWEEN EACH UTILITIES' INTEGRATED RESOURCE FILING**  
10  **REQUIREMENTS AND A COMPETITIVE BIDDING RULE?**

11  A     Yes. S.C. Ann. Section 58-33-430 requires each regulated utility to  
12  annually furnish a report to the Commission that contains its ten year forecast of  
13  loads and resources, or its "Integrated Resource Plan" or "IRP." This plan  
14  identifies resource requirements in the year in which any given Company's  
15  reserve margins are anticipated to fall below typically accepted planning criteria.  
16  This IRP process should be maintained, even in an environment in which a  
17  competitive bidding rule would be promulgated. In fact, the IRP will serve as a  
18  useful tool for market participants in understanding the generation resource  
19  needs for each of the state's regulated utilities. The identification of a resource  
20  need in the near future indicates that the potential for the issuance of an RFP is  
21  in the near future and market participants can make development plans based  
22  upon such information. Further, the IRP process gives the Commission and the  
23  utility an understanding of what resources are needed and when, providing each

1 (Commission and utility) with plenty of time to develop plans to solicit the market  
2 for a variety of different resources that could be used to meet future needs.

3 **Q LET'S TURN TO THE SECOND CONDITION OF DEVELOPING A RULE**  
4 **ON AN EXPEDITED BASIS. WHY IS THIS IMPORTANT?**

5 A While utilities should be required to plan on longer horizons, generation  
6 resource needs can and do change unexpectedly. Changes in load growth, new  
7 environmental regulations, and natural disasters like hurricanes can change the  
8 resource needs of a utility almost overnight. A load serving entity will, therefore,  
9 have to react quickly to these changes in order to fulfill its obligation to serve.  
10 Thus, any competitive bidding requirement should be done in a concise,  
11 expedited, but deliberate fashion that does not interfere with that ability.

12 **Q DOES THE CURRENT SITING ACT ENVISION AN EXPEDITED**  
13 **CONSIDERATION FOR RESOURCE PROPOSALS?**

14 A Yes, I believe it does. The current Siting Act calls for expedited treatment  
15 in the hearing process (Section 58-33-130) as well as making provisions for the  
16 emergency treatment of asset approval (Section 58-33-110(6)) if it is in the public  
17 interest. Both of these provisions can and should be preserved and  
18 accommodated even if a competitive bidding rule is adopted.

19 **Q YOUR THIRD CONDITION DEFINES TRANSPARENCY AS AN**  
20 **IMPORTANT FACTOR FOR A GOOD COMPETITIVE BIDDING RULE. WHY**  
21 **IS THIS IMPORTANT?**

22 A Transparency is important in order for all market participants to  
23 understand the resource being considered and the timetables and costs under



1 which all proposals will be compared. Here, transparency means that any filings  
2 supporting a utility RFP be made completely clear and unambiguous. This is  
3 important to ensure that competitive alternatives are compared on “an apples-to-  
4 apples” basis. When complete information on the supply side resource being  
5 considered by the utility is provided to the market, each market participant has an  
6 accurate benchmark in which to establish a competitive offering. This would be  
7 true whether the benchmark is a utility self-build option, a repowering option, or a  
8 purchased power agreement/offer submitted to the utility under a bilateral  
9 negotiation outside any RFP process.

10 **Q WHAT TYPE OF INFORMATION SHOULD BE PROVIDED IN**  
11 **DEVELOPING AN RFP?**

12 A Obviously, some of the basics like the capacity needed and time period for  
13 which that capacity is needed are important. Further information would include  
14 the utility resource for which this solicitation is being compared. This would  
15 include any self-build option (new construction or re-powering), a purchase sale  
16 agreement (“PSA”) associated with a proposed asset acquisition; or purchased  
17 power agreement (“PPA”) that may have been initially negotiated in a bilateral  
18 arrangement. On self build options, identification of the unit being proposed is  
19 important, its size, its proposed prime mover and primary fuel, its location, its  
20 anticipated commercial operation date (“COD”), and the costs of developing the  
21 unit including the anticipated installed cost per kW; the non-fuel operating costs;  
22 and forecasted fuel-related costs.

1    **Q     SHOULD ANY OPERATIONAL INFORMATION BE PROVIDED DURING**  
2    **THIS PROCESS AS WELL?**

3    A     Yes, an important criticism that has been leveled by many incumbent  
4    utilities over the past several years regarding competitive bids and purchased  
5    power agreements has been associated with the dispatchability requirements  
6    that many utilities believe IPPs do not address in their offers. It is important that  
7    utilities provide complete information on the dispatchability requirements of the  
8    resource addition to ensure that competitive offers are appropriate and have the  
9    opportunity to meet the utility's load needs as closely as possible. Further, any  
10   special requirements for transmission should be clearly identified in the RFP. All  
11   too often, this critical component can be left out of the RFP process.

12   **Q     IS YOUR TRANSPARENCY REQUIREMENT INCONSISTENT WITH**  
13   **YOUR FOURTH REQUIREMENT OF MAINTAINING THE CONFIDENCE OF**  
14   **INFORMATION?**

15   A     No I do not believe that having a transparency requirement is inconsistent  
16   with maintaining the confidentiality of information. There may be instances in  
17   which information should be available to parties participating in the process, but  
18   should not be released generally to the public due to confidentiality concerns.  
19   The Commission should be the ultimate arbiter of whether information associated  
20   with the competitive bid is confidential and whether it should be withheld from  
21   general distribution. If so, standard confidentiality arrangements should be  
22   made. If certain challenges arise in the competitive bidding process, outside  
23   counsel and consultants that are in non-commercial roles with potential bidders

1 should be able to review information subject to standard confidentiality  
2 requirements.

3 **Q PLEASE DISCUSS YOUR FIFTH REQUIREMENT: THE**  
4 **CONSIDERATION OF A WIDE RANGE OF PRODUCTS IN A COMPETITIVE**  
5 **BIDDING PROCESS?**

6 A The competitive bidding process should not be limited to a comparison of  
7 just long term purchases and a self build option. There are a number of other  
8 product or combination (or portfolio) of options that could be considered from the  
9 market including short run energy offerings; intermediate term products; long  
10 term purchases; and life-of-unit acquisitions from a variety of fuel sources  
11 including coal, natural gas, and even renewables and energy efficiency.  
12 Ratepayers are benefited by this because they generally diversify a portfolio and  
13 reduce risk.

14 **Q OFTEN TIMES, UTILITIES WILL SUGGEST THAT PURCHASED**  
15 **POWER ALTERNATIVES ARE NEVER COMPARABLE TO THE “BRICKS**  
16 **AND MORTAR” ACQUISITION OF A POWER PLANT. DO YOU AGREE?**

17 A No, because in some instances, these bricks and mortar investments can  
18 themselves be rigid. Taking such a position fails to understand the flexibility that  
19 many purchased power contracts can include. For instance, one of many early  
20 lessons being learned in the aftermath of Hurricane Katrina is how flexible these  
21 contracts can be. Contracts can be moved from one operating company to  
22 another, or the output can be resold to the market minimizing the losses during  
23 the outage period when plants are inoperable.

1   **Q     WHY IS YOUR SIXTH REQUIREMENT, OBJECTIVITY, IMPORTANT?**

2   A     Because objectivity helps to ensure a fair and balanced review of resource  
3   opportunities. Any RFP submitted to the market should have a pre-defined  
4   scoring sheet that clearly identifies the criteria by which resource submissions  
5   will be evaluated and the weights of each of these criteria. While cost is a very  
6   important component of any bid evaluation, other factors can include, but are not  
7   limited to, resource diversity, flexibility, reputation of the provider, and credit  
8   worthiness.

9   **Q     ISN'T YOUR REQUIREMENT ESTABLISHING THESE WEIGHTS**  
10 **SOMEWHAT RIGID?**

11 A     While the criteria, and their relative weights, can change over time, they  
12 should not change within any single competitive bidding processes.  
13 Unnecessarily changing the evaluation criteria and their respective weights  
14 during the middle, or during the course of a competitive bidding process can  
15 ultimately result in an inefficient outcome. Potential bidders could become  
16 disillusioned with the process, its independence, and its objectivity. As a result,  
17 bidders may decline from participating in the processes thereby limiting the  
18 scope of options for regulators.

19 **Q     DOESN'T THIS ELIMINATE UTILITY FLEXIBILITY?**

20 A     Maybe, but this small loss of flexibility needs to be weighed against the  
21 possible cost of introducing too much utility subjectivity in the process.  
22 Subjectivity can often times lead to bias, which in term can lead to a less than  
23 optimal competitive bidding outcome. Thus, providing a firm scoring analysis for

1 each competitive bidding process throughout the evaluation process is a  
2 reasonable compromise to maintain the integrity and confidence in the process.  
3 Ratepayers are benefited by this because confidence in the process ensures a  
4 greater level of participation by competitors than a process left to the discretion of  
5 the regulated utility.

6 **Q LASTLY, WHY IS INDEPENDENCE SUCH AN IMPORTANT PART OF**  
7 **THE COMPETITIVE BIDDING PROCESS?**

8 A Independence creates an exceptional amount of credibility and confidence  
9 in the process. One of the most significant differences between today's  
10 competitive bidding practices and those of prior decades has been the issue of  
11 bid evaluation independence. Competitive bidding in today's utility industry,  
12 particularly in states that have not introduced retail competition (and unbundled),  
13 is unique in the sense that a competitor to the process (the utility) is also the  
14 entity that in many instances evaluates the competitively submitted bids and  
15 makes an award determination. The inherent competitive conflict between  
16 participant and evaluator should be readily apparent: it's like the proverbial fox  
17 watching the hen-house. This is one of the reasons that many states have  
18 injected new forms of independence into the competitive bidding process.

19 **Q HOW CAN INDEPENDENCE BE ESTABLISHED?**

20 A Independence can be attained in a variety of different ways. One of the  
21 most dramatic ways of attaining independence is to explicitly preclude all utilities  
22 and any of their affiliates, from making offers into a competitive solicitation. This  
23 way, the conflict of interest is completely removed from the process.

1   **Q     DO YOU THINK THIS IS REASONABLE?**

2   A     No, not in most cases. Often utilities do have legitimate and cost effective  
3   offers to be evaluated in the process. Restricting their participation, therefore,  
4   would not be advantageous to ratepayers since increasing the number of  
5   competitive offers, not restricting them, is the whole purpose of using market-  
6   based mechanisms like RFPs. The process does however, have to find ways to  
7   recognize and address this inherent conflict.

8   **Q     HOW HAVE OTHER STATES ADDRESSED THIS ISSUE?**

9   A     Generally, there are two ways in which other states, particularly those in  
10  the southeast that have recently adopted competitive bidding, are ensuring  
11  independence. The first is through an independent monitor ("IM"), the other is  
12  through an independent evaluator ("IE").

13  **Q     HOW DOES AN INDEPENDENT MONITOR DIFFER FROM AN**  
14  **INDEPENDENT ADMINISTRATOR?**

15  A     While the use of these terms can vary, the role of an independent monitor  
16  is usually less intrusive and represents a level of independence that is not as  
17  strict as an independent evaluator. An independent monitor, for instance, serves  
18  in an oversight role and reviews the competitive bidding process from a distance.  
19  The IM observes the process from start to finish, but usually does not make any  
20  direct input into the process, nor does it make any recommendations to the  
21  Commission about the merits of individual bids. An IM would participate  
22  however, if it believed there was a lack of independence in the process. The  
23  independent evaluator, on the other hand, is a direct participant in the process,

1 usually working in conjunction with the Commission staff, and works from start to  
2 finish, including providing active input in all phases of the process. The IE, in  
3 conjunction with the staff, provides recommendations to the Commission on  
4 resource selection.

5 **Q ARE ANY OF THESE CRITERIA YOU HAVE DISCUSSED MORE**  
6 **IMPORTANT THAN OTHERS?**

7 A Yes, ultimately, independence is going to be the most important criteria of  
8 those I have discussed earlier. Independence is important to the process  
9 because it brings credibility. A credible process is in the best interest of  
10 ratepayers as it ensures greater levels of participation, and greater levels of  
11 participation means a wider selection of diverse resource offerings – helping to  
12 ensure that the most beneficial resource for ratepayers is being secured.

13 **SECTION IX: CONCLUSIONS AND RECOMMENDATIONS**

14 **Q WOULD YOU PLEASE SUMMARIZE YOUR RECOMMENDATIONS?**

15 A I recommend the Commission find that, in principle, adopting a  
16 competitive bidding rule would be in the public interest and to issue an Order in  
17 this docket that would move forward with a competitive bidding rule making  
18 proceeding that would explore the means by which a process could be  
19 developed that is in the best interest of South Carolina ratepayers.

**ATTACHMENT 1:**  
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Ph.D., Economics, Florida State University, 1995.  
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Master's Thesis: *Nuclear Power Project Disallowances: A Discrete Choice Model of Regulatory Decisions*

Ph.D. Dissertation: *An Empirical Examination of Environmental Externalities and the Least-Cost Selection of Electric Generation Facilities*

**ACADEMIC APPOINTMENTS**

Louisiana State University, Baton Rouge, Louisiana

Center for Energy Studies

2003-Current	Associate Director
2001-Current	Associate Professor
2000-2001	Research Fellow and Adjunct Assistant Professor
1999-2000	Managing Director, Distributed Energy Resources Initiative
1995-2000	Assistant Professor

E.J. Ourso College of Business Administration, Department of Economics

2001-Current	Adjunct Associate Professor
1999-2000	Adjunct Assistant Professor

Florida State University, Tallahassee, Florida  
Department of Economics

1995	Instructor
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## **PROFESSIONAL EXPERIENCE**

Acadian Consulting Group, Baton Rouge, Louisiana

2001-Current	Consulting Economist/Principal
1995-2000	Consulting Economist/Principal

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Florida Public Service Commission, Tallahassee, Florida  
Division of Communications, Policy Analysis Section

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1993	Planning & Research Economist
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Project for an Energy Efficient Florida &  
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Ben Johnson Associates, Inc., Tallahassee, Florida

1991-1992	Research Associate
1989-1991	Senior Research Analyst
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## **GOVERNMENT APPOINTMENTS**

2005-Current	Member, Task Force on Energy Sector Workforce and Economic Development (HCR 322).
2003-Current	Member, Energy and Basic Industries Task Force, Louisiana Economic Development Council
2001-2003	Member, Louisiana Comprehensive Energy Policy Commission.

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#### **PUBLICATIONS: REPORTS AND OTHER PUBLICATIONS**

*Restructuring the Electric Utility Industry: Implications for Louisiana*. (1996). With Allan Pulsipher and Kimberly H. Dismukes. Baton Rouge, LA: Louisiana State University, Center for Energy Studies.

*Assessing the Environmental and Safety Risks of the Expanded Role of Independents in Oil and Gas E&P Operations on the U.S. Gulf of Mexico OCS*. (1996). With Allan Pulsipher, Omowumi Iledare, Dmitry Mesyanzhinov, William Daniel, and Bob Baumann. Baton Rouge, LA: Louisiana State University, Center for Energy Studies.

*Energy Conservation and Electric Restructuring In Louisiana*. (2000). With Dmitry Mesyanzhinov, Ritchie D. Priddy, Robert F. Cope III, and Vera Tabakova. Baton Rouge, LA: Louisiana State University, Center for Energy Studies.

*The Economic Impacts of Merchant Power Plant Development in Mississippi*. (2001). Report Prepared on Behalf of the US Oil and Gas Association, Alabama and Mississippi Division. Houston, TX: Econ One Research, Inc.

*Moving to the Front of the Lines: The Economic Impacts of Independent Power Plant Development in Louisiana*. (2001). With Dmitry Mesyanzhinov and Williams O. Olatubi. Baton Rouge, LA: Louisiana State University, Center for Energy Studies.

*Alaska In-State Natural Gas Demand Study*. (2002). With Dmitry Mesyanzhinov, et.al. Anchorage, Alaska: Alaska Department of Natural Resources, Division of Oil and Gas.



*An Analysis of the Economic Impacts Associated with Oil and Gas Activities on State Leases.* (2002) With Robert H. Baumann, Dmitry V. Mesyanzhinov, and Allan G. Pulsipher. Baton Rouge, LA: Louisiana Department of Natural Resources, Office of Mineral Resources.

*Modeling the Economic Impact of Offshore Oil and Gas Activities in the Gulf of Mexico: Methods and Application.* (2003). With Williams O. Olatubi, Dmitry V. Mesyanzhinov, and Allan G. Pulsipher. Prepared by the Center for Energy Studies, Louisiana State University, Baton Rouge, La. OCS Study MMS2000-0XX. U.S. Department of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, La.

*The Power of Generation: The Ongoing Benefits of Independent Power Development in Louisiana.* With Dmitry V. Mesyanzhinov, Jeffrey M. Burke, and Elizabeth A. Downer. Baton Rouge, LA: LSU Center for Energy Studies, 2003.

*Deepwater Program: OCS-Related Infrastructure in the Gulf of Mexico Fact Book.* (2004). With Louis Berger Associates, University of New Orleans National Ports and Waterways Institute, and Research and Planning Associates. MMS Study No. 1435-01-99-CT-30955. U.S. Department of the Interior, Minerals Management Service.

*Marginal Oil and Gas Production in Louisiana: An Empirical Examination of State Activities and Policy Mechanisms for Stimulating Additional Production.* (2004). With Dmitry V. Mesyanzhinov, Jeffrey M. Burke, Robert H. Baumann. Baton Rouge, LA: Louisiana Department of Natural Resources, Office of Mineral Resources.

*Economic Opportunities for LNG Development in Louisiana.* (2004). With Elizabeth A. Downer and Dmitry V. Mesyanzhinov. Baton Rouge, LA: Louisiana Department of Economic Development and Greater New Orleans, Inc.

*Economic Opportunities for a Limited Industrial Retail Choice Plan in Louisiana.* (2004). With Elizabeth A. Downer and Dmitry V. Mesyanzhinov. Baton Rouge, LA: Louisiana State University Center for Energy Studies.

*Comparison of Methods for Estimating the NO<sub>x</sub> Emission Impacts of Energy Efficiency and Renewable Energy Projects Shreveport, Louisiana Case Study.* (2005). With Adam Chambers, David Kline, Laura Vimmerstedt, Art Diem, and Dmitry Mesyanzhinov. Golden, Colorado: National Renewable Energy Laboratory.

"Louisiana's Oil and Gas Industry: A Study of the Recent Deterioration of State Activity." (2005). With Kristi A.R. Darby, Jeffrey M. Burke, and Robert H. Baumann. Baton Rouge, LA: Louisiana Department of Natural Resources.

## **GRANT RESEARCH**

*Co-Principal Investigator.* "Assessing the Environmental and Safety Risks of the Expanded Role of Independents in Oil and Gas E&P Operations on the U.S. Gulf of Mexico OCS." (1996). With Allan Pulsipher, Omowumi Iledare, Dmitry Mesyanzhinov, William Daniel, and Bob Baumann. U.S. Department of Interior, Minerals Management Service, Grant Number 95-0056. Total Project Funding: \$109,361. Status: Completed.

*Principal Investigator.* "The Industrial Supply of Electricity: Commercial Generation, Self-Generation, and Industry Restructuring" (1996). With Andrew Kleit. Louisiana Energy Enhancement Program, LSU Office of Research and Development. Total Project Funding: \$19,948. Status: Completed.

*Principal Investigator.* "Energy Conservation and Electric Restructuring in Louisiana." (1997). Louisiana Department of Natural Resources. Petroleum Violation Escrow Program Funds. Total Project Funding: \$43,169. Status: Completed.

*Principal Investigator.* "An Economic Impact Analysis of OCS Activities on Coastal Louisiana." (1998). With Dmitry Mesyanzhinov and David Hughes. U.S. Department of Interior, Minerals Management Service. Total Project Funding: \$190,166. Status: Completed.

*Principal Investigator.* "Cost Profiles and Cost Functions for Gulf of Mexico Oil and Gas Development Phases for Input Output Modeling." (1998). With Dmitry Mesyanzhinov and Allan G. Pulsipher. U.S. Department of Interior, Minerals Management Service. Total Project Funding: \$244,956. Status: Completed.

*Co-Principal Investigator.* "An Analysis of the Economic Impacts of Drilling and Production Activities on State Leases." (2002) With Robert H. Baumann, Allan G. Pulsipher, and Dmitry V. Mesyanzhinov. Louisiana Office of Mineral Resources. Total Project Funding: \$8,000. Status: Completed.

*Principal Investigator.* "A Collaborative Investigation of Baseline and Scenario Information for Environmental Impact Statements." (2002). With Dmitry V. Mesyanzhinov and Williams O. Olatubi. U.S. Department of Interior, Minerals Management Service. Total Project Funding: \$600,000. Status: Awarded, In Progress, three year project.

*Principal Investigator.* "Marginal Oil and Gas Properties on State Leases in Louisiana: An Empirical Examination and Policy Mechanisms for Stimulating Additional Production." (2002). With Robert H. Baumann and Dmitry V. Mesyanzhinov. Louisiana Office of Mineral Resources. Total Project Funding: \$72,000. Status: Completed.

*Principal Investigator.* "Economic Opportunities from LNG Development in Louisiana." (2003). With Dmitry V. Mesyanzhinov. Metrovision/New Orleans Chamber of Commerce and the Louisiana Department of Economic Development. Total Project Funding: \$25,000. Status: Completed.

*Principal Investigator.* "Examination of the Economic Impacts Associated with Large Customer, Industrial Retail Choice." (2004). With Dmitry V. Mesyanzhinov. Louisiana Mid-Continent Oil and Gas Association. Total Project Funding: \$37,000. Status: Completed.

*Principal Investigator.* "An Examination on the Development of Liquefied Natural Gas Facilities on the Gulf of Mexico." (2004). With Dmitry V. Mesyanzhinov and Mark J. Kaiser. U.S. Department of the Interior, Minerals Management Service. Total Project Funding \$101,054. Status: Awarded, In Progress.

*Principal Investigator.* "An Examination of the Opportunities for Drilling Incentives on State Leases." (2004). With Robert H. Baumann and Kristi A. R. Darby. Louisiana Office of Mineral Resources. Total Project Funding: \$75,000. Status: Completed, Under Final Review.

*Principal Investigator.* "Ultra Deepwater Road Mapping Process." (2005). With Kristi A. R. Darby, Subcontract with the Texas A&M University, Department of Petroleum Engineering. Funded by the Gas Technology Institute. Total Project Funding: \$15,000. Status: Under Review.

## **ACADEMIC CONFERENCE PRESENTATIONS**

"A Cross-Sectional Model of IntraLATA MTS Demand." (1995). Southern Economic Association, Sixty-Fifth Annual Conference. New Orleans, Louisiana.

"Empirical Determinants of Nuclear Power Plant Disallowances." (1995). Southern Economic Association, Sixty-Fifth Annual Conference. New Orleans, Louisiana.

"Comparing the Safety and Environmental Performance of Offshore Oil and Gas Operators." (1995). With Allan Pulsipher, Omowumi Iledare, Dmitry Mesyanzhinov, William Daniel, and Bob Baumann. U.S. Department of Interior, Minerals Management Service, 15th Annual Information Transfer Meeting. New Orleans, Louisiana.

"Spatial Perspectives on the Forthcoming Deregulation of the U.S. Electric Utility Industry." (1996) With Dmitry Mesyanzhinov. Southwest Association of American Geographers Annual Meeting. Norman, Oklahoma.

"Recovery of Stranded Investments: Comparing the Electric Utility Industry to Other Recently Deregulated Industries" (1996). With Farhad Niami and Dmitry Mesyanzhinov. Southern Economic Association, Sixty-Sixth Annual Conference. Washington, D.C.

"Input Price Fluctuations, Total Factor Productivity, and Price Cap Regulation in the Telecommunications Industry" (1996). With Farhad Niami. Southern Economic Association, Sixty-Sixth Annual Conference. Washington, D.C.

"Empirical Modeling of the Risk of a Petroleum Spill During E&P Operations: A Case Study of the Gulf of Mexico OCS." (1996). With Omowumi Iledare, Allan Pulsipher, and Dmitry Mesyanzhinov. Southern Economic Association, Sixty-Sixth Annual Conference. Washington, D.C.

"Assessing Environmental and Safety Risks of the Expanding Role of Independents in E&P Operations on the Gulf of Mexico OCS." (1996). With Allan Pulsipher, Omowumi Iledare, Dmitry Mesyanzhinov, and Bob Baumann. U.S. Department of Interior, Minerals Management Service, 16th Annual Information Transfer Meeting. New Orleans, Louisiana.

"The Unintended Consequences of the Public Utilities Regulatory Policies Act of 1978." (1997). National Policy History Conference on the Unintended Consequences of Policy Decisions. Bowling Green State University. Bowling Green, Ohio. June 5-7.

"Cogeneration and Electric Power Industry Restructuring." (1997). With Andrew N. Kleit. Western Economic Association, Seventy-fifth Annual Conference. Seattle, Washington. July 9-13.

"New Paradigms for Power Engineering Education." (1997). With Fred I. Denny. International Association of Science and Technology for Development, High Technology in the Power Industry Conference. Orlando, Florida. October 27-30

"A Non-Linear Programming Model to Estimate Stranded Generation Investments in a Deregulated Electric Utility Industry." (1997). With Robert F. Cope and Dan Rinks. Institute for Operations Research and Management Science Annual Conference. Dallas Texas. October 26-29.

"Benchmarking Electric Utility Transmission Performance." (1997). With Robert F. Cope and Dmitry Mesyanzhinov. Southern Economic Association, Sixty-seventh Annual Conference. Atlanta, Georgia. November 21-24.

"Power System Operations, Control, and Environmental Protection in a Restructured Electric Power Industry." (1998). With Fred I. Denny. IEEE Large Engineering Systems Conference on Power Engineering. Nova Scotia, Canada. June.

"Benchmarking Electric Utility Distribution Performance." (1998) With Robert F. Cope and Dmitry Mesyanzhinov. Western Economic Association, Seventy-sixth Annual Conference. Lake Tahoe, Nevada. June.

"Modeling Electric Power Markets in a Restructured Environment." (1998). With Robert F. Cope and Dan Rinks. International Association for Energy Economics Annual Conference. Albuquerque, New Mexico. October.

"Empirical Issues in Electric Power Transmission and Distribution Cost Modeling." (1998). With Robert F. Cope and Dmitry Mesyanzhinov. Southern Economic Association. Sixty-Eighth Annual Conference. Baltimore, Maryland. November.

"Economic Impact of Offshore Oil and Gas Activities on Coastal Louisiana" (1999). With Dmitry Mesyanzhinov. Annual Meeting of the Association of American Geographers. Honolulu, Hawaii. March.

"Modeling Regional Power Markets and Market Power." (1999). With Robert F. Cope. Western Economic Association Annual Conference. San Diego, California. July.

"Asymmetric Choice and Customer Benefits: Lessons from the Natural Gas Industry." (1999). With Rachelle F. Cope and Dmitry Mesyanzhinov. International Association of Energy Economics Annual Conference. Orlando, Florida. August.

"Parametric and Non-Parametric Approaches to Measuring Efficiency Potentials in Electric Power Generation." (1999). With Williams O. Olatubi. International Atlantic Economic Society Annual Conference, Montreal, October.

"Applied Approaches to Modeling Regional Power Markets." (1999.) With Robert F. Cope. Southern Economic Association Sixty-ninth Annual Conference. New Orleans, November 1999.

"Estimating Efficiency Opportunities for Coal Fired Electric Power Generation: A DEA Approach." (1999). With Williams O. Olatubi. Southern Economic Association Sixty-ninth Annual Conference. New Orleans, November.

"Distributed Energy Resources, Energy Efficiency, and Electric Power Industry Restructuring." (1999). American Society of Environmental Science Fourth Annual Conference. Baton Rouge, Louisiana. December.

"New Consistent Approach to Modeling Regional Economic Impacts of Offshore Oil and Gas Activities in the Gulf of Mexico." (2002). With Vicki Zatarain. 2002 National IMPLAN Users' Conference. New Orleans, Louisiana, September 4-6.

"Moving to the Front of the Lines: The Economic Impact of Independent Power Plant Development in Louisiana." (2002). With Dmitry V. Mesyanzhinov and Williams O. Olatubi. 2002 National IMPLAN Users' Conference. New Orleans, Louisiana, September 4-6.

"The Economic Impact of State Oil and Gas Leases on Louisiana." (2002). With Dmitry V. Mesyanzhinov. 2002 National IMPLAN Users' Conference. New Orleans, Louisiana, September 4-6.

"Are There Any In-State Uses for Alaska Natural Gas?" (2002). With Dmitry V. Mesyanzhinov and William E. Nebesky. IAEE/USAEE 22<sup>nd</sup> Annual North American Conference: "Energy Markets in Turmoil: Making Sense of It All." October 7, 2002, Vancouver, British Columbia, Canada.

"GIS and Applied Economic Analysis: The Case of Alaska Residential Natural Gas Demand." With Dmitry V. Mesyanzhinov. Presented at the Joint Meeting of the East Lakes and West Lakes Divisions of the Association of American Geographers in Kalamazoo, MI, October 16-18, 2003.

"Fiscal Mechanisms for Stimulating Oil and Gas Production on Marginal Leases." With Jeffrey M. Burke. International Association of Energy Economics Annual Conference, Washington, D.C. (July, 2004).

"An Examination of the Opportunities for Drilling Incentives on State Leases in Louisiana." With Kristi A.R. Darby. 28<sup>th</sup> Annual IAEE International Conference, Taipei, Taiwan (June 2005).

## **ACADEMIC SEMINARS AND PRESENTATIONS**

"The Empirical Determinants of Co-generated Electricity: Implications for Electric Power Industry Restructuring." (1997). With Andrew N. Kleit. Florida State University. Department of Economics: Applied Microeconomics Workshop Series. October 17, Tallahassee, Florida.

"Electric Restructuring and Nuclear Power." (1997). Louisiana State University. Department of Nuclear Science. November 7, Baton Rouge, Louisiana.

"Electric Restructuring and the Environment." (1998). Environment 98: Science, Law, and Public Policy. Tulane University. Tulane Environmental Law Clinic. March 7, New Orleans, Louisiana.

"Electric Restructuring and Conservation." (2001). Presentation before the Department of Electrical Engineering, McNeese State University. Lake Charles, Louisiana. May 2, 2001.

"Trends and Issues in the Natural Gas Industry and the Development of LNG: Implications for Louisiana. (2004) 51<sup>st</sup> Mineral Law Institute, Louisiana State University, Baton Rouge, LA. April 2, 2004.

## **PROFESSIONAL AND CIVIC PRESENTATIONS**

Panelist, "Deregulation and Competition." American Nuclear Society: Second Annual Joint Louisiana and Mississippi Section Meetings, Baton Rouge, Louisiana, April 20, 1996.

Roundtable Moderator, "Stakeholder Perspectives on Electric Utility Stranded Costs." Louisiana State University, Center for Energy Studies Seminar on Electric Utility Restructuring in Louisiana, Baton Rouge, May 29, 1996.

"Electric Utility Restructuring." Sunshine Rotary Club Meetings, Baton Rouge, Louisiana, August 8, 1996.

"Electric Utility Restructuring -- Background and Overview." Louisiana Public Service Commission, Baton Rouge, Louisiana, August 14, 1996.

"Electric Utility Restructuring" Louisiana Electric Cooperative Association, Baton Rouge, Louisiana, August 27, 1996.

"Electric Utility Restructuring in Louisiana." Entergy Services, Transmission and Distribution Division, Energy Centre, New Orleans, Louisiana, September 12, 1996

"Electric Utility Restructuring in Louisiana." Jennings Rotary Club, Jennings, Louisiana, November 19, 1996.

"Deregulating the Electric Utility Industry." Eighth Annual Economic Development Summit, Baton Rouge, Louisiana, November 21, 1996.

"Restructuring the Electric Utility Industry." Louisiana Propane Gas Association Annual Meeting, Alexandria, Louisiana, December 12, 1996.

"Electric Restructuring: Louisiana Issues and Outlook for 1997." Louisiana State University, Center for Energy Studies Industry Associates Meeting, Baton Rouge, Louisiana, January 15, 1997.

"The Electric Utility Restructuring Debate In Louisiana: An Overview of the Issues." Annual Conference of the Public Affairs Research Council of Louisiana. Baton Rouge, Louisiana. March 25, 1997.

"Electric Utility Restructuring: Issues and Trends for Louisiana." Opelousas Chamber of Commerce, Opelousas, Louisiana. June 24, 1997.

"Electric Utility Restructuring." Louisiana Association of Energy Engineers. Baton Rouge, Louisiana. September 11, 1997.

"Electric Utility Restructuring in Louisiana." Hammond Chamber of Commerce, Hammond, Louisiana. October 30, 1997.

"Reflections and Predictions on Electric Utility Restructuring in Louisiana." With Fred I. Denny. Louisiana State University, Center for Energy Studies Industry Associates Meeting. November 20, 1997.

"How Will Utility Deregulation Affect Tourism." Louisiana Travel Promotion Association Annual Meeting, Alexandria, Louisiana. January 15, 1998.

"The Implications of Electric Restructuring on Independent Oil and Gas Operations." Petroleum Technology Transfer Council Workshop: Electrical Power Cost Reduction Methods in Oil and Gas Field Operations. Shreveport, Louisiana, October 13, 1998.

"A Short Course on Electric Restructuring." Central Louisiana Electric Company. Sales and Marketing Division. Mandeville, Louisiana, October 22, 1998.

"What's Happened to Electricity Restructuring in Louisiana?" Louisiana State University, Center for Energy Studies Industry Associates Meeting. March 22, 1999.

"The Implications of Electric Restructuring on Independent Oil and Gas Operations." Petroleum Technology Transfer Council Workshop: Electrical Power Cost Reduction Methods in Oil and Gas Field Operations. Lafayette, Louisiana, March 24, 1999.

"The Dynamics of Electric Restructuring in Louisiana." Joint Meeting of the American Association of Energy Engineers and the International Association of Facilities Managers. Metairie, Louisiana. April 29, 1999.

"The Political Economy of Electric Restructuring In the South" Southeastern Electric Exchange, Rate Section Annual Conference. New Orleans, Louisiana. May 7, 1999.

Roundtable Discussant. "Environmental Regulation in a Restructured Market" The Big E: How to Successfully Manage the Environment in the Era of Competitive Energy. PUR Conference. New Orleans, Louisiana. May 24, 1999.

"Merchant Power Opportunities in Louisiana." Louisiana Mid-Continent Oil and Gas Association (LMOGA) Power Generation Committee Meetings. Baton Rouge, Louisiana. November 10, 1999.

"Distributed Energy Resources Initiatives." Louisiana State University, Center for Energy Studies Industry Associates Meeting. Baton Rouge, Louisiana. December 15, 1999.

"LSU/CES Distributed Energy Resources Initiatives." Los Alamos National Laboratories. Office of Energy and Sustainable Systems. Los Alamos, New Mexico. February 16, 2000.

"Electricity 101: Definitions, Precedents, and Issues." Energy Council's 2000 Federal Energy and Environmental Matters Conference. Loews L'Enfant Plaza Hotel, Washington, D.C. March 11-13, 2000.

Roundtable Moderator/Discussant. Mid-South Electric Reliability Summit. U.S. Department of Energy. New Orleans, Louisiana. April 24, 2000.

"A Introduction to Distributed Energy Resources." Summer Meetings, Southeastern Association of Regulatory Utility Commissioners (SEARUC). New Orleans, LA. June 27, 2000.

"Electric Reliability and Merchant Power Development Issues." Technical Meetings of the Louisiana Public Service Commission. Baton Rouge, LA. August 29, 2000.

"Pricing and Regulatory Issues Associated with Distributed Energy." Joint Conference by Econ One Research, Inc., the Louisiana State University Distributed Energy Resources Initiative, and the University of Houston Energy Institute: "Is the Window Closing for Distributed Energy?" Houston, Texas, October 13, 2000.

"Energy Conservation and Electric Restructuring." With Ritchie D. Priddy. Presentation before the Louisiana Department of Natural Resources. Baton Rouge, Louisiana, October 23, 2000.

"The Economic Impacts of Merchant Power Plant Development In Mississippi." Presentation before the Mississippi Public Service Commission. Jackson, Mississippi, March 20, 2001.

"The Changing Nature of the Electric Power Business in Louisiana: Background and Issues." Presentation before the Louisiana Department of Economic Development. Baton Rouge, LA, July 3, 2001.

"The Changing Nature of the Electric Power Business in Louisiana: Background and Issues." Presentation before the Louisiana Office of the Governor. Baton Rouge, LA, July 16, 2001.

"Power Business in Louisiana: Background and Issues." Presentation before the Louisiana Interagency Group on Merchant Power Development . Baton Rouge, LA, July 16, 2001.

"The Changing Nature of the Electric Power Business in Louisiana." Presentation before the Louisiana Department of Environmental Quality. Baton Rouge, LA, August 27, 2001.

"Economic Opportunities for Merchant Power Development in the South." Presentation before the Southern Governor's Association/Southern State Energy Board Meetings. Lexington, KY. September 9, 2001.

"Economic Impacts of Merchant Power Plant Development in Mississippi." Presentation before the U.S. Oil and Gas Association Annual Oil and Gas Forum. Jackson, Mississippi. October 10, 2001.

"Moving to the Front of the Lines: The Economic Impact of Independent Power Production in Louisiana." Presentation before the LSU Center for Energy Studies Merchant Power Generation and Transmission Conference, Baton Rouge, LA. October 11, 2001.

"Merchant Power and Deregulation: Issues and Impacts." Presentation before the Air and Waste Management Association Annual Meeting. Baton Rouge, LA, November 15, 2001.



"Power Plant Siting Issues in Louisiana." Presentation before 24<sup>th</sup> Annual Conference on Waste and the Environment. Sponsored by the Louisiana Department of Environmental Quality. Lafayette, Louisiana, Cajundome. March 12, 2002.

"Merchant Energy Development Issues in Louisiana." Presentation before the Program Committee of the Center for Legislative, Energy, and Environmental Research (CLEER), Energy Council. April 19, 2002.

"An Introduction to Distributed Energy Resources." Presentation before the U.S. Department of Energy, Office of Renewable Energy and Energy Efficiency, State Energy Program/Rebuild America Conference, August 1, 2002, New Orleans, Louisiana.

"What's Happened to the Merchant Energy Industry? Issues, Challenges, and Outlook" Presentation before the LSU Center for Energy Studies Industry Associates Advisory Council Meeting. November 12, 2002. Baton Rouge, Louisiana.

"Issues and Opportunities with Distributed Energy Resources." Presentation before the Louisiana Biomass Council. April 17, 2003, Baton Rouge, Louisiana.

"Natural Gas Outlook." Presentation before the Louisiana Chemical Association, October 17, 2003, Pointe Clear, Alabama.

"Affordable Energy: The Key Component to a Strong Economy." Presentation before the National Association of Regulatory Utility Commissioners ("NARUC"), November 18, 2003, Atlanta, Georgia.

"Regional Transmission Organization in the South: The Demise of SeTrans" Presentation before the LSU Center for Energy Studies Industry Associates Advisory Council Meeting. December 9, 2003. Baton Rouge, Louisiana.

"Competitive Bidding in the Electric Power Industry." Presentation before the Association of Energy Engineers. Business Energy Solutions Expo. December 11-12, 2003, New Orleans, Louisiana.

"Natural Gas Outlook" Presentation before the St. James Parish Community Advisory Panel Meeting. January 7, 2004, IMC Production Facility, Convent, Louisiana.

"Natural Gas Outlook: Trends and Issues for Louisiana." Presentation before the Louisiana Joint Agricultural Association Meetings. January 14, 2004, Hotel Acadiana, Lafayette, Louisiana.

"The Economic Opportunities for LNG Development in Louisiana." Presentation before the Board of Directors, Greater New Orleans, Inc. May 13, 2004, New Orleans, LA.

"Industry Development Issues for Louisiana: LNG, Retail Choice, and Energy." Presentation before the LSU Center for Energy Studies Industry Associates. May 14, 2004, Baton Rouge, LA.

"The Economic Opportunities for LNG Development in Louisiana." Presentation before the Petrochemical Industry Cluster, Greater New Orleans, Inc. May 19, 2004, Destrehan, LA.

"The Economic Opportunities for LNG Development in Louisiana." Presentation before the Louisiana Chemical Association/Louisiana Chemical Industry Alliance Legislative Conference. May 26, 2004. Baton Rouge, LA.

"The Economic Opportunities for LNG Development in Louisiana." Presentation before the Louisiana Chemical Association Plant Managers Meeting. May 27, 2004. Baton Rouge, LA.

"Natural Gas and LNG Issues for Louisiana." Presentation before the Rhodia Community Advisory Panel. May 20, 2004, Baton Rouge, LA.

"The Gulf South: Economic Opportunities Related to LNG." Presentation before the Energy Council's 2004 State and Provincial Energy and Environmental Trends Conference. Point Clear, AL, June 26, 2004.

"Louisiana Energy Issues." Louisiana Mid-Continent Oil and Gas Association Post Legislative Meetings. Sandestin, Florida. July 28, 2004.

"LNG In Louisiana." Joint Meeting of the Louisiana Economic Development Council and the Governors Cabinet Advisory Council. Baton Rouge, LA. August 5, 2004.

"Energy Issues for Industrial Customers of Gas and Power." Louisiana Chemical Association Post-Legislative Meeting. Springfield, LA. August 9, 2004.

"Natural Gas Supply, Prices and LNG: Implications for Louisiana Industry." Dow Chemical Company Community Advisory Panel Meeting. Plaquemine, LA. August 9, 2004.

"Energy Issues for Industrial Customers of Gas and Power." American Institute of Chemical Engineers – New Orleans Section. New Orleans, LA. September 22, 2004.

"Energy Issues for Industrial Customers of Gas and Power." Annual Meeting of the Louisiana Chemical Association and the Louisiana Chemical Industry Alliance. Point Clear, Alabama. October 8, 2004.

"Energy Issues for Industrial Customers of Gas and Power." Louisiana Association of Business and Industry, Energy Council Meeting. Baton Rouge, Louisiana. October 11, 2004.

"The Economic Opportunities for a Limited Industrial Retail Choice Plan." Louisiana Department of Economic Development. Baton Rouge, Louisiana. November 19, 2004.

"Natural Gas Supply, Prices, and LNG: Implications for Louisiana Industry." Cytec Corporation Community Advisory Panel. Fortier, LA January 14, 2005.

"Background and Overview of LNG Development." Energy Council Workshop on LNG/CNG. Biloxi, Ms: Beau Rivage Resort and Hotel, April 9, 2005.

"The Outlook for Energy." Sunshine Rotary Club. Baton Rouge, LA. April 27, 2005.

"The Outlook for Energy." Lagniappe Studies Continuing Education Course. Baton Rouge, LA. July 11, 2005.

"Electric Restructuring: Past, Present, and Future." Presentation to the Southeastern Association of Tax Administrators Annual Conference. Sheraton Hotel and Conference Facility. New Orleans, LA July 12, 2005.

"CES 2005 Legislative Support and Outlook for Energy Markets and Policy." Presentation before the LMOGA/LCA Annual Post-Session Legislative Committee Meeting. August 10-13, 2005. Perdido Key, Florida.

"Louisiana Power Industry Overview." Presentation before the Clean Air Interstate Rule Implementation Stakeholders Meeting. August 11, 2005. Louisiana Department of Environmental Quality.

### **EXPERT WITNESS, LEGISLATIVE, AND PUBLIC TESTIMONY; EXPERT REPORTS AND AFFIDAVITS**

Docket 920188-TL, (1992). Before the Florida Public Service Commission. On the Behalf of the Florida Public Service Commission Staff. Company analyzed: GTE-Florida. Issues: Telephone Demand Forecasts and Empirical Estimates of the Price Elasticity of Demand for Telecommunication Services.

Docket 920260-TL, (1993). Before the Florida Public Service Commission. On the Behalf of the Florida Public Service Commission Staff. Company analyzed: BellSouth Communications, Inc. Issues: Telephone Demand Forecasts and Empirical Estimates of the Price Elasticity of Demand for Telecommunication Services.

Docket 940448-EG -- 940551-EG (1994). Before the Florida Public Service Commission. On the Behalf of the Legal Environmental Assistance Foundation. Companies analyzed: Florida Power & Light Company; Florida Power Corporation; Tampa Electric Company; and Gulf Power Company. Issues: Comparison of Forecasted Cost-Effective Conservation Potentials for Florida.

Docket 950495-WS (1996). Before the Florida Public Service Commission. On the Behalf of the Citizens of the State of Florida. Company analyzed: Southern States Utilities, Inc. Issues: Revenue Repression Adjustment, Residential and Commercial Demand for Water Service. Louisiana House of Representatives, Special Subcommittee on Utility Deregulation. (1997). On Behalf of the Louisiana Public Service Commission Staff. Issue: Electric Restructuring.

Docket 990001-EI (1999). Before the Florida Public Service Commission. On the Behalf of the Citizens of the State of Florida. Companies analyzed: Florida Power & Light Company; Florida Power Corporation; Tampa Electric Company; and Gulf Power Company. Issues: Regulatory Treatment of Incentive Returns on Gains from Economic Energy Sales.

Docket 991779-EI (2000). Before the Florida Public Service Commission. On the Behalf of the Citizens of the State of Florida. Companies analyzed: Florida Power & Light Company; Florida Power Corporation; Tampa Electric Company; and Gulf Power Company. Issues: Competitive Nature of Wholesale Markets, Regional Power Markets, and Regulatory Treatment of Incentive Returns on Gains from Economic Energy Sales.

Docket 22351 (2001). Before the Public Utility Commission of Texas. On the Behalf of the City of Amarillo. Company analyzed: Southwestern Public Service Company. Issues: Unbundled cost of service, affiliate transactions, load forecasting.

Docket Number 01-1048 (2001). Before the Public Utilities Commission of Nevada. On the Behalf of the Nevada Office of the Attorney General, Bureau of Consumer Protection. Company analyzed: Nevada Bell Telephone Company. Issues: Statistical Issues Associated with Performance Incentive Plans.

Louisiana Board of Commerce and Industry (2001). Testimony on the Economic and Ratepayer Benefits of Merchant Power Generation and Issues Associated with Tax Incentives on Merchant Power Generation and Transmission.

Expert Affidavit before the Federal District Court, Middle District of Louisiana (2001). Issues: Competitive Nature of the Natural Gas Transportation Market in Louisiana. On behalf of a Consortium of Interstate Natural Gas Transportation Companies.

Multiple Dockets (2001). Before the Louisiana Tax Commission. On the Behalf of Louisiana Interstate Pipeline Companies. Testimony on the Competitive Nature of Natural Gas Transportation Services in Louisiana.

Docket Number 01-1049, Docket Number 01-3001. (2001) On behalf the Nevada Office of Attorney General, Bureau of Consumer Protection. Petition of Central Telephone Company-Nevada D/b/a Sprint of Nevada and Sprint Communications L.P. for Review and Approval of Proposed Revised Performance Measures and Review and Approval of Performance Measurement Incentive Plans. Before the Public Utilities Commission of Nevada.

Expert Report. (2001) On Behalf of David Liou and Pacific Richland Products, Inc. to Review Cogeneration Issues Associated with Dupont Dow Elastomers, L.L.C. (DDE) and the Dow Chemical Company (Dow).

Docket Number 24468. (2001). On the Behalf of the Texas Office of Public Utility Counsel. Public Utility Commission of Texas Staff's Petition to Determine Readiness for Retail Competition in the Portion of Texas Within the Southwest Power Pool. Company examined: AEP-SWEPCO.

Louisiana Board of Commerce and Industry (2001). Testimony on the Economic Impacts of Merchant Power Generation.

Docket Number 000824-EI. Before the Florida Public Service Commission. (2002). On the Behalf of the Citizens of the State of Florida. Company examined: Florida Power Corporation. Issues: Load Forecasts and Billing Determinants for the Projected Test Year.

Docket Number U-22407. Before the Louisiana Public Service Commission (2002). On the Behalf of the Louisiana Public Service Commission Staff. Company examined: Louisiana Gas Services, Inc. Issues: Purchased Gas Acquisition audit, fuel procurement and planning practices.

Export Report and Testimony. Docket 1997-4665-PV, 1998-4206-PV, 1999-7380-PV, 2000-5958-PV, 2001-6039-PV, 2002-64680-PV, 2003-6231-PV. (2003) Before the Kansas Board of

Tax Appeals. (2003). In the Matter of the Appeals of CIG Field Services Company from orders of the Division of Property Valuation. On the Behalf of CIG Field Services. Issues: the competitive nature of natural gas gathering in Kansas.

Docket Number 27363. (2004). Before the Public Utilities Commission of Texas. Joint Affidavit on Behalf of the Cities of Texas and the Staff of the Public Utilities Commission of Texas Regarding Certified Issues. In Re: Application of Valor Telecommunications, L.P. For Authority to Establish Extended Local Calling Service (ELCS) Surcharges For Recovery of ELCS Surcharge.

Docket Number 040001-EI. (2004). Before the Florida Public Service Commission. On behalf of Power Manufacturing Systems LLC, Thomas K. Churbuck, and the Florida Industrial Power Users Group. In re: Fuel Adjustment Proceedings; Request for Approval of New Purchase Power Agreements. Company examined: Florida Power & Light Company.

Docket Number 2004-178-E. (2004). Before the South Carolina Public Service Commission. On behalf of Columbia Energy LLC. In re: Rate Increase Request of South Carolina Electric and Gas. (Direct and Surrebuttal Testimony)

Docket No. U-27159. (2004). On Behalf of the Louisiana Public Service Commission Staff. Expert Report on Overcharges Assessed by Network Operator Services, Inc. Before the Louisiana Public Service Commission.

ANR Pipeline Company v. Louisiana Tax Commission (2005), Number 468,417 Section 22, 19th Judicial District Court, Parish of East Baton Rouge, State of Louisiana Consolidated with Docket Numbers: 480,159; 489,776;480,160; 480,161; 480,162; 480,163; 480,373; 489,776; 489,777; 489,778;489,779; 489,780; 489,803; 491,530; 491,744; 491,745; 491,746; 491,912;503,466; 503,468; 503,469; 503,470; 515,414; 515,415; and 515,416. In re: Market structure issues and competitive implications of tax differentials and valuation methods in natural gas transportation markets for interstate and intrastate pipelines.

Docket No. \_\_\_\_\_ (2005). On behalf of the City of Lafayette, Louisiana and the Lafayette Utilities Services. Expert Rebuttal Report of the Harborfront Consulting Group Valuation Analysis of the LUS Expropriation. Filed before State District Court, Lafayette, Louisiana.

Docket No. 2003-K-1876. (2005). On Behalf of Columbia Gas Transmission. Expert Testimony on the Competitive Market Structure for Gas Transportation Service in Ohio. Before the Ohio Board of Tax Appeals.

Docket No. U-21453. (2005). Technical Conference before the Louisiana Public Service Commission. Comments on an Investigation for a Limited Industrial Retail Choice Plan.

Legislative Testimony (2005). Background and Impact of LNG Facilities on Louisiana. Joint Meeting of Senate and House Natural Resources Committee. Louisiana Legislature. May 19, 2005.

Comments on Decreased Drilling Activities in Louisiana and the Role of Incentives. (2005). Louisiana Mineral Board Monthly Docket and Lease Sale. July 13, 2005

Docket Number 050045-EI and 050188-EI. (2005). Before the Florida Public Service Commission. On the behalf of the Citizens of the State of Florida. In re: Petition for Rate Increase by Florida Power & Light Company. Issues: Load forecasting; O&M forecasting and benchmarking; incentive returns/regulation.

Docket No. 05-UA-323. (2005.) Before the Mississippi Public Service Commission. On the behalf of Calpine Corporation. In re: Entergy Mississippi's Proposed Acquisition of the Attala Generation Facility. Issues: Asset acquisition; merchant power development; competitive bidding.

### **REFeree AND EDITORIAL APPOINTMENTS**

Referee, 1995-Current, *Energy Journal*

Referee, 2002, *Resource & Energy Economics*

Referee, 2004, *Southern Economic Journal*

Contributing Editor, 2000-Current, *Oil, Gas and Energy Quarterly*

Committee Member, IAEE/USAE Student Paper Scholarship Award Committee, 2003

### **PROPOSAL TECHNICAL REVIEWER**

California Energy Commission, Public Interest Energy Research (PIER) Program (1999).

### **PROFESSIONAL ASSOCIATIONS**

American Economic Association, American Statistical Association, Econometric Society, Southern Economic Association, Western Economic Association, and the International Association of Energy Economists.

### **HONORS AND AWARDS**

Omicron Delta Epsilon (1992-Current)

Florida Public Service Commission, Staff Excellence Award for Assistance in the Analysis of Local Exchange Competition Legislation (1995).

Distinguished Research Award, Academy of Legal, Ethical and Regulatory Issues, Allied Academics (2002).

Interstate Oil and Gas Compact Commission (IOGCC) "Best Practice" Award for Research on the Economic Impact of Oil and Gas Activities on State Leases for the Louisiana Department of Natural Resources (2003).

*Baton Rouge Business Report*, Selected as "Top 40 Under 40" (2003).

National Association of Regulatory Utility Commissioners (NARUC). Best Paper Award for papers published in the *Journal of Applied Regulation*.

### **TEACHING EXPERIENCE**

Principles of Microeconomic Theory

Principles of Macroeconomic Theory

Lecturer, Electric Power Industry Environmental Issues, Field Course on Energy and the Environment. (Dept of Environmental Studies).

Lecturer, Electric Power Industry Trends, Principles Course in Power Engineering (Dept. of Electric Engineering).

Continuing Education. Electric Power Industry Restructuring for Energy Professionals.

"The Gulf Coast Energy Situation: Outlook for Production and Consumption." Educational Course and Lecture Prepared for the Foundation for American Communications and the Society for Professional Journalists, New Orleans, LA, December 2, 2004

"The Impact of Hurricane Katrina on Louisiana's Energy Infrastructure and National Energy Markets." Educational Course and Lecture Prepared for the Foundation for American Communications and the Society for Professional Journalists, Houston, TX, September 13, 2005.

### **THESIS/DISSERTATIONS COMMITTEES**

5 Thesis Committee Memberships (Environmental Studies, Geography)

3 Doctoral Committee Memberships (Information Systems & Decision Sciences, Agricultural and Resource Economics, Economics).

### **LSU SERVICE AND COMMITTEE MEMBERSHIPS**

LSU Faculty Senate Committee on Public Relations (1997-1999).

LSU Faculty Senate Committee on Student Retention and Recruitment (1999-2003).

LSU CES/SCE Public Art Selection Committee (2003-2005).

LSU InterCollege Environmental Cooperative. (1999-2001).

LSU Main Campus Cogeneration/Turbine Project, (1999-2000).

Co-Chairman, Review Committee, Louisiana Port Construction and Development Priority Program Rules and Regulations, On Behalf of the LSU Ports and Waterways Institute. (1997).

Conference Coordinator. Center for Energy Studies Seminar Series on Electric Utility Restructuring and Wholesale Competition. (1996-2003).

Conference Coordinator. Center for Energy Studies Annual Energy Conference/Summit. (2003-Current).

Conference Coordinator. (2005) Center for Energy Studies Conference on Alternative Energy.

LSU Faculty Senate (2003-2006)

LSU Graduate Faculty, Associate Member (1997-2004); Full Member (2004-Current)

Search Committee Member (2005), CES Communications Manager.

Search Committee Member (2005), Research Associate 4 Position.

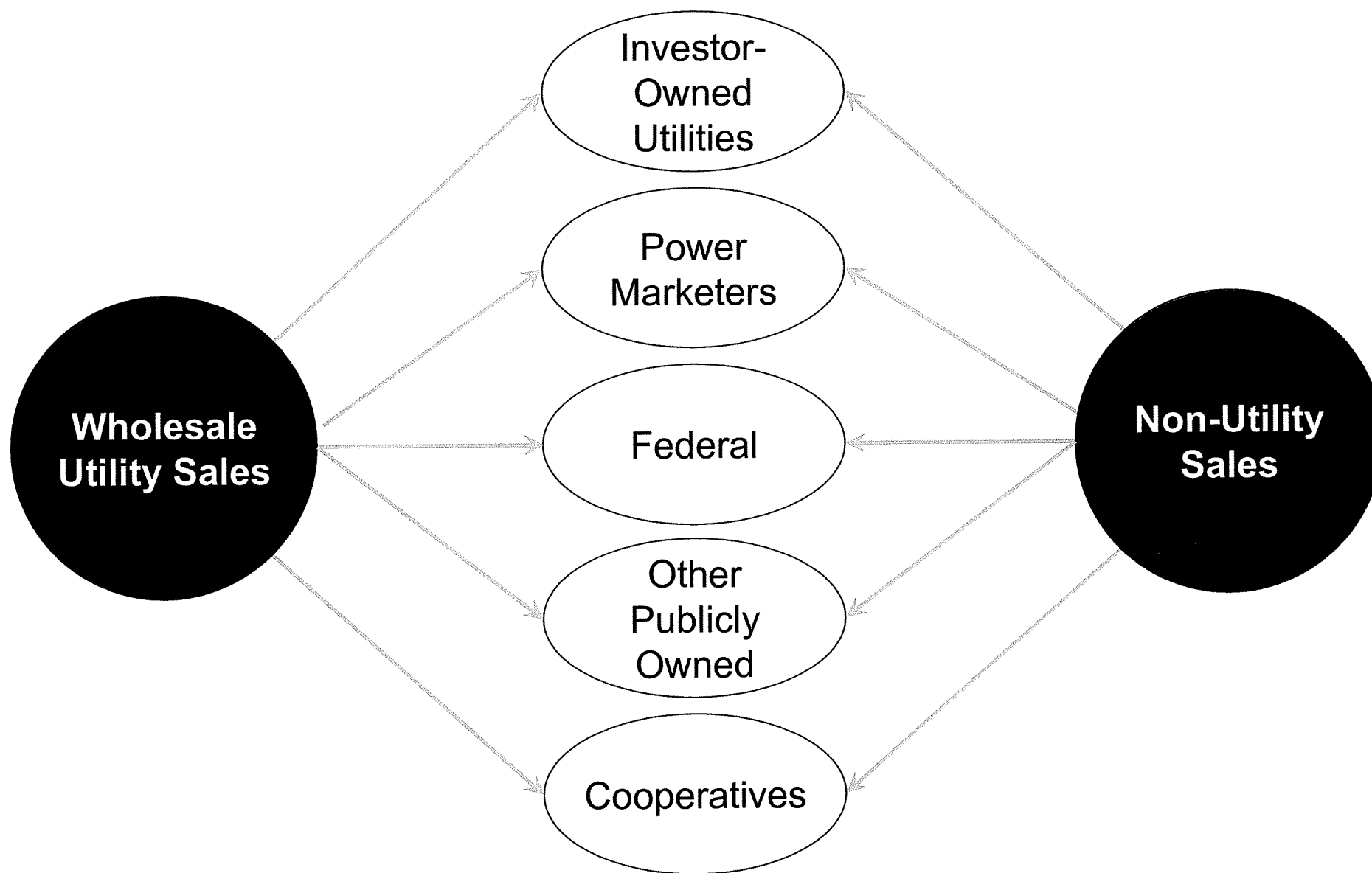
### **PROFESSIONAL SERVICE**

Secretary, (2001) Houston Chapter, U.S. Association for Energy Economics

Founding President, (2005) Louisiana Chapter, U.S. Association for Energy Economics

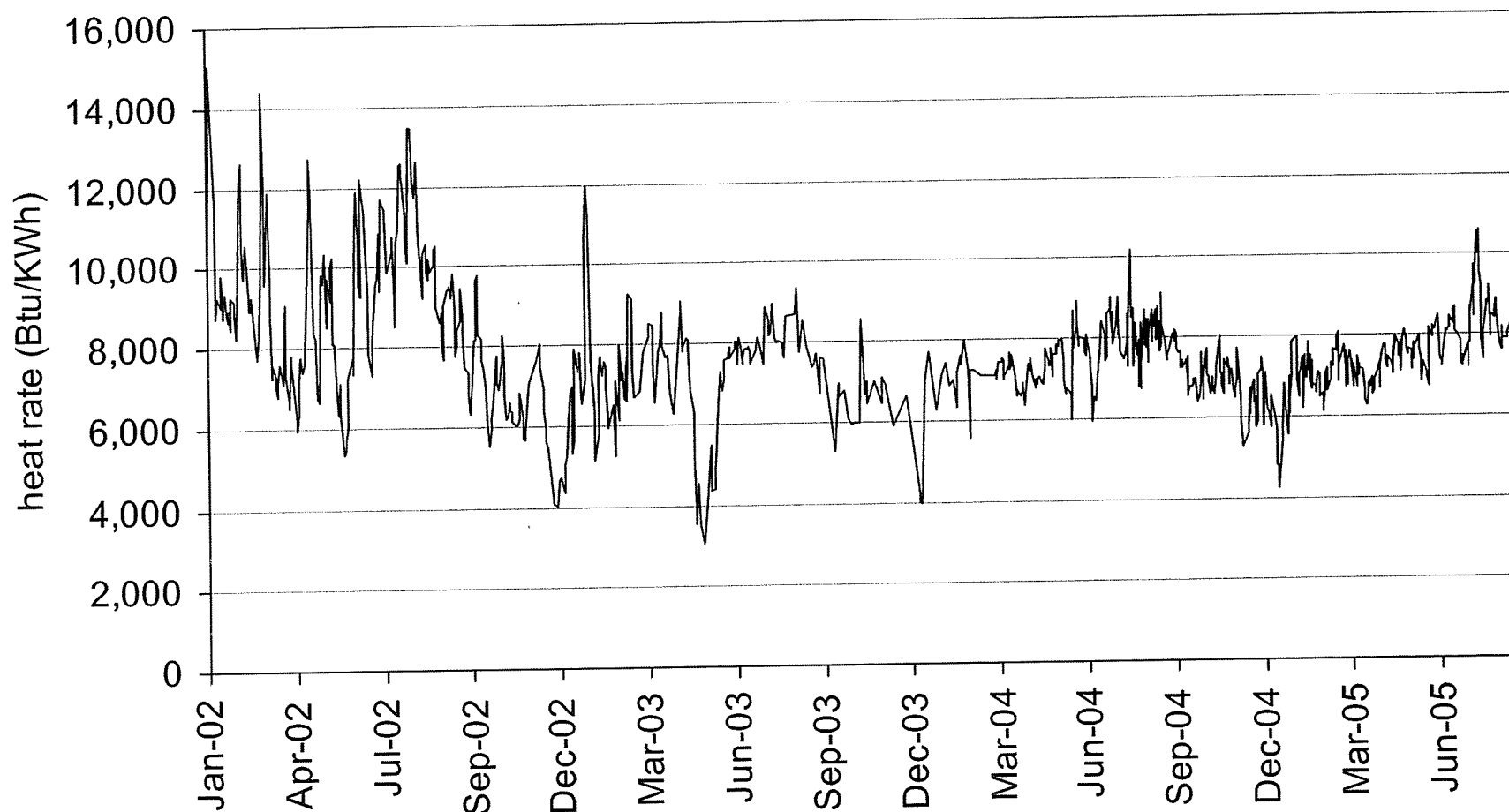
Advisor, Louisiana LNG Buyers/Developers Summit, Office of the Governor/Louisiana Department of Economic Development/Louisiana Department of Natural Resources, and Greater New Orleans, Inc. (2004).





# Market Clearing Heat Rate SOCO, Peak

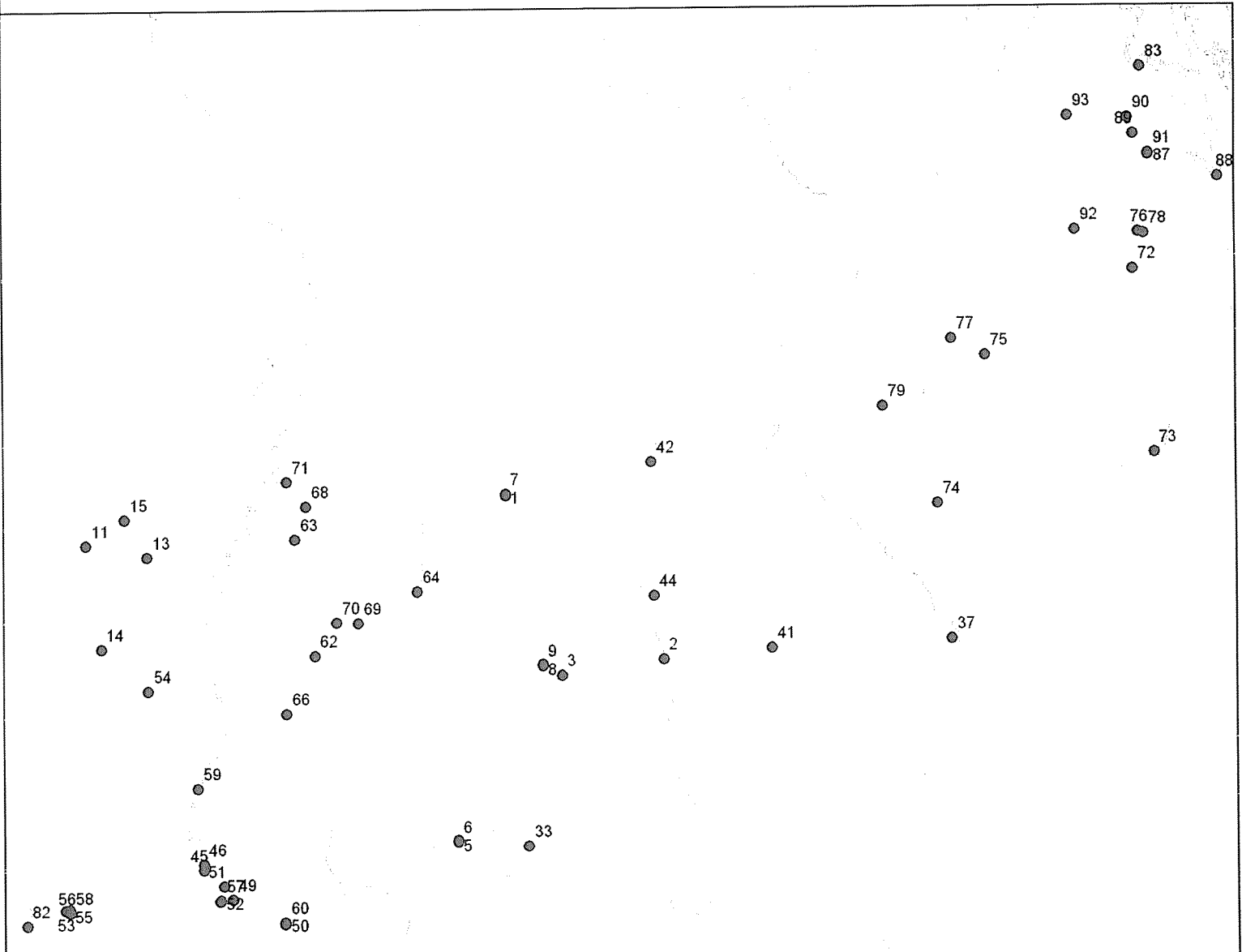
Docket No. 2005-191-E  
David E. Dismukes, Ph.D.  
Exhibit No. \_\_\_\_ (DED-2)  
Page 1 of 1



# Independent Development in the SERC Region

Docket No. 2005-191-E  
David E. Dismukes, Ph.D.  
Exhibit No. \_\_\_\_ (DED-3)  
Page 1 of 1

Plant Name	Capacity (MW)
1 Decatur Energy Center	624
2 Franklin	1,139
3 Harris	1,035
5 Hog Bayou Energy Center	230
6 Mobile Energy Services LLC	125
7 Morgan Energy Center	588
8 Tenaska Cntl Alabama Gen St	808
9 Tenaska Lindsay Hill Gen St	858
10 Hot Spring Energy Facility	652
13 Pine Bluff Energy Center	198
14 Union Power Station	2,020
15 Wrightsville Power Facility	568
33 Santa Rosa Energy Center	236
37 Effingham County Power Proj	490
41 Mid-Georgia Cog Fac	316
42 Murray Energy Facility	1,244
44 Wansley	1,066
45 Big Cajun 1	220
46 Big Cajun 2	1,730
49 Carville Energy LLC	500
50 Dow St Charles Operations	292
51 ExxonMobil Baton Rouge Cogen	332
52 LaO Energy Systems	588
53 Nelson Industrial Steam	213
54 Ouachita Generating Plant	816
55 PPG Powerhouse C	303
56 PPG Riverside	154
57 Plaquemine Cogeneration	859
58 RS Cogen	396
59 Sidney A Murray Jr Hydro	192
60 Taft Cogeneration Facility	790
62 Attala Generating LLC	459
63 Batesville Generation Facility	858
64 Caledonia	783
66 Hinds Energy Facility	450
68 Magnolia Power Plant	863
69 Red Hills Generating Facility	440
70 Reliant Energy Choctaw County	726
71 Southaven Energy LLC	783
72 Cogentrix Dw Collier Battle Cogen	105
73 Cogentrix Southport	107
74 Columbia Energy Center	580
75 Narrows	107
76 Panda Rosemary LP	165
77 Rowan	967
78 Westmoreland-LG&E Roanoke Val I	165
79 Cherokee County Cogen	95
82 SRW Cogen LP	420
83 Birchwood Power	238
87 Cogentrix Hopewell	93
88 Cogentrix Portsmouth	115
89 Cogentrix of Richmond	190
90 Doswell Energy Center	820
91 Hopewell Cogeneration	348
92 Mecklenburg Cog Fac	132
93 Tenaska Virginia Gen St	946
<b>Total</b>	<b>30,537</b>



Note: Does not include peaking facilities

## Independent Development in SERC by Sub-region

Docket No. 2005-191-E  
David E. Dismukes, Ph.D.  
Exhibit No. \_\_\_\_ (DED-4)  
Page 1 of 1

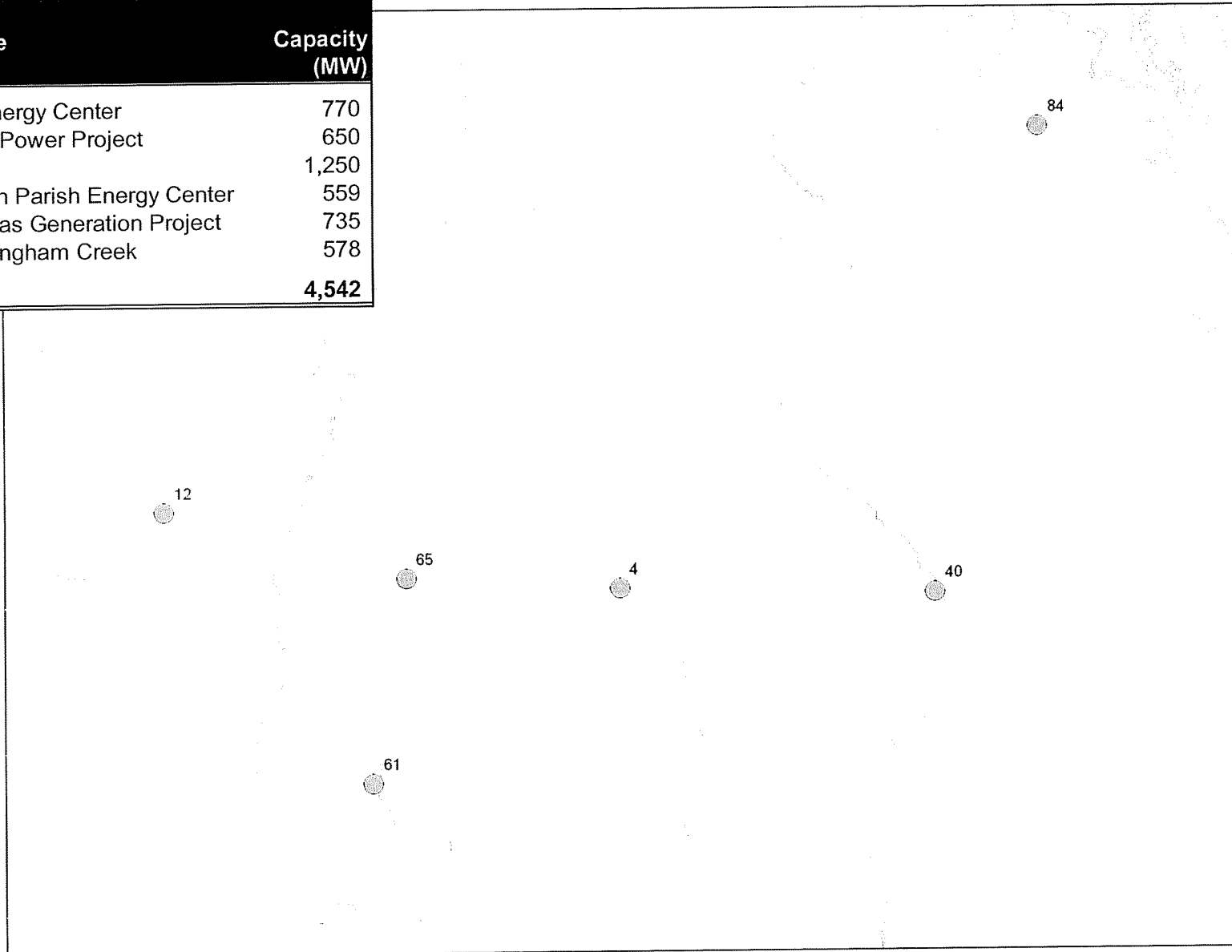
Subregion	Number of Plants	Capacity (MW)
Entergy	23	13,660
Southern	11	7,548
TVA	6	4,156
VACAR	16	5,173
<b>Total</b>	<b>56</b>	<b>30,537</b>

Note: Does not include peaking facilities

# Independent Facilities Under Construction in SERC

Docket No. 2005-191-E  
David E. Dismukes, Ph.D.  
Exhibit No. \_\_\_\_ (DED-5)  
Page 1 of 1

Plant Name	Capacity (MW)
4 Hillabee Energy Center	770
12 Hot Spring Power Project	650
40 McIntosh	1,250
61 Washington Parish Energy Center	559
65 Choctaw Gas Generation Project	735
84 CPV Cunningham Creek	578
<b>Total</b>	<b>4,542</b>

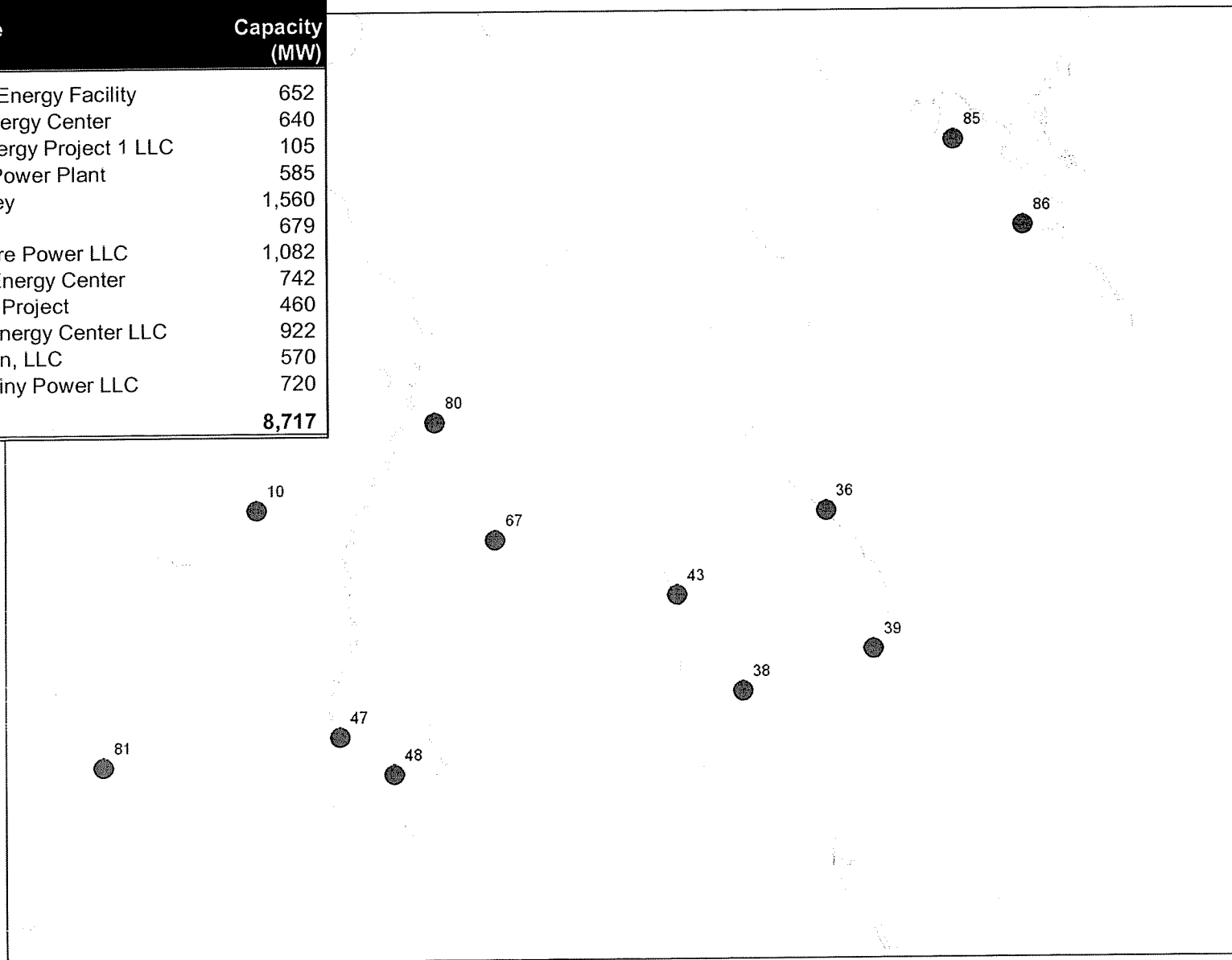


Note: Does not include peaking facilities

# Independent Facilities Under Development in SERC

Docket No. 2005-191-E  
David E. Dismukes, Ph.D.  
Exhibit No. \_\_\_\_ (DED-6)  
Page 1 of 1

Plant Name	Capacity (MW)
11 Hot Spring Energy Facility	652
36 Augusta Energy Center	640
38 Georgia Energy Project 1 LLC	105
39 Live Oaks Power Plant	585
43 Peace Valley	1,560
47 Big Cajun 2	679
48 Bonnet Carre Power LLC	1,082
67 Lone Oak Energy Center	742
81 MC Energy Project	460
80 Haywood Energy Center LLC	922
85 CPV Warren, LLC	570
86 Chickahominy Power LLC	720
<b>Total</b>	<b>8,717</b>

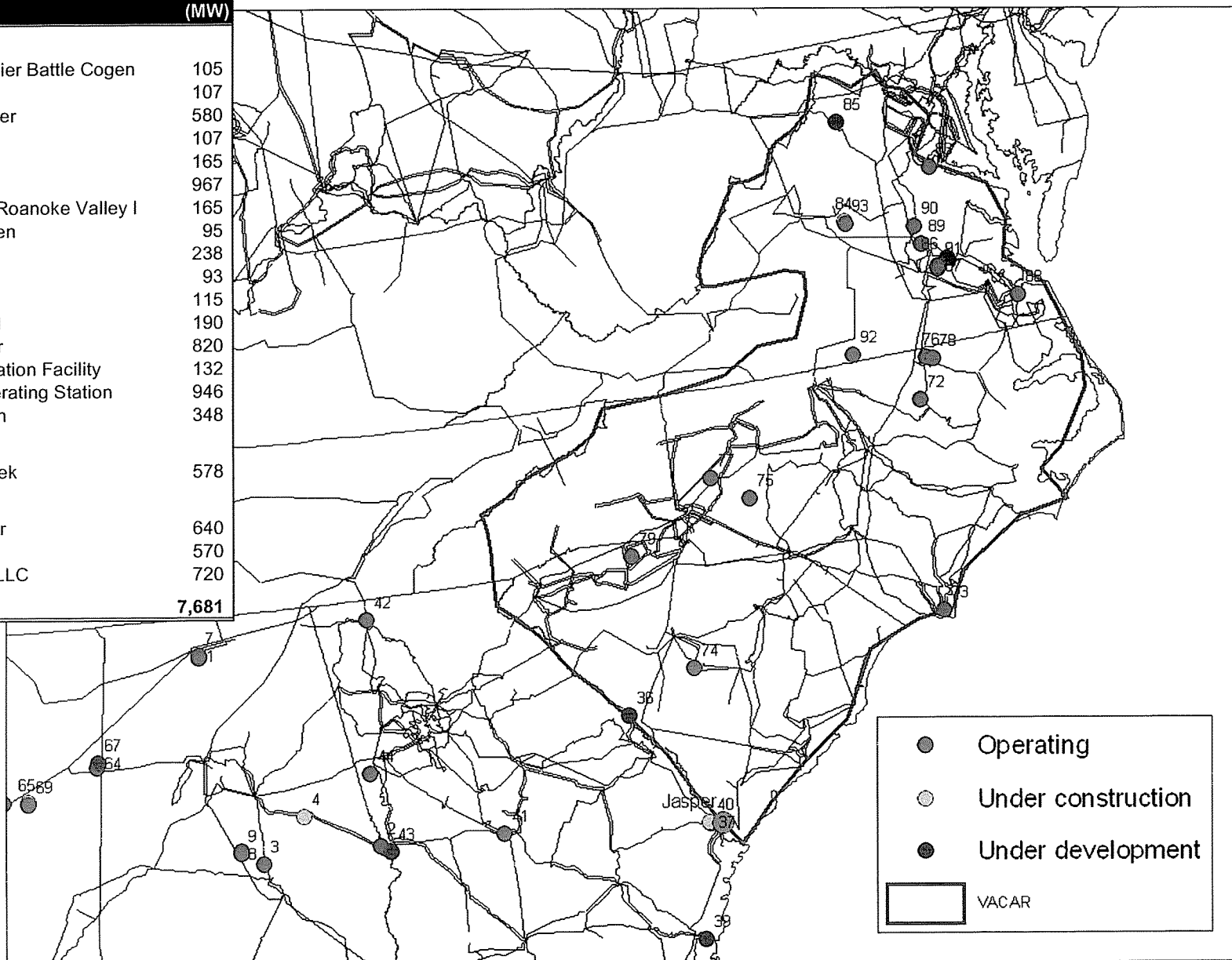


Note: Does not include peaking facilities

# Independent Development in VACAR

Docket No. 2005-191-E  
David E. Dismukes, Ph.D.  
Exhibit No. \_\_\_\_ (DED-7)  
Page 1 of 1

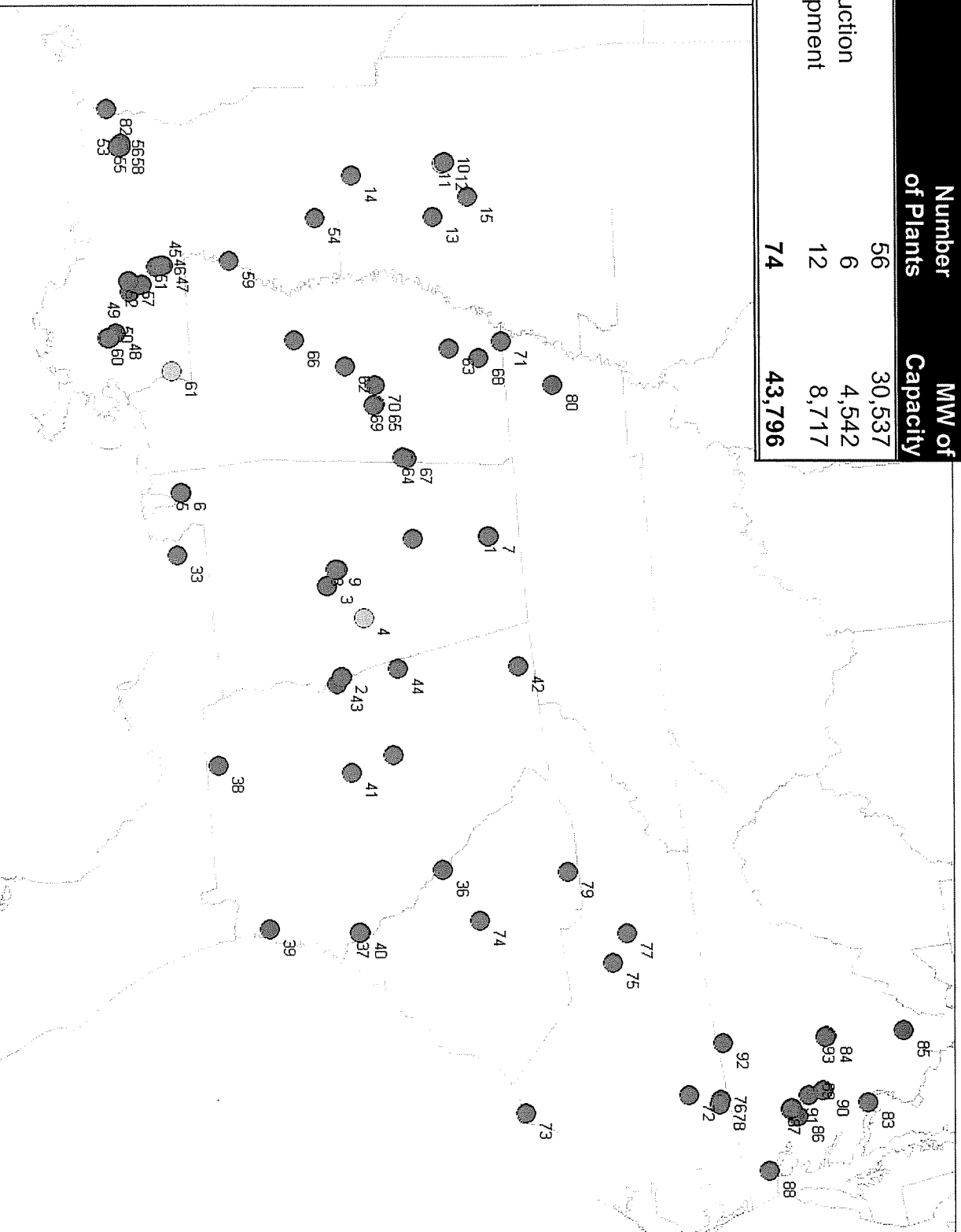
Plant Name	Capacity (MW)
<b>Operating</b>	
72 Cogentrix Dwayne Collier Battle Cogen	105
73 Cogentrix Southport	107
74 Columbia Energy Center	580
75 Narrows	107
76 Panda Rosemary LP	165
77 Rowan	967
78 Westmoreland-LG&E Roanoke Valley I	165
79 Cherokee County Cogen	95
83 Birchwood Power	238
87 Cogentrix Hopewell	93
88 Cogentrix Portsmouth	115
89 Cogentrix of Richmond	190
90 Doswell Energy Center	820
92 Mecklenburg Cogeneration Facility	132
93 Tenaska Virginia Generating Station	946
91 Hopewell Cogeneration	348
<b>Under Construction</b>	
84 CPV Cunningham Creek	578
<b>Under Development</b>	
36 Augusta Energy Center	640
85 CPV Warren, LLC	570
86 Chickahominy Power LLC	720
<b>Total</b>	<b>7,681</b>



Note: Does not include peaking facilities

# Independent Alternatives in SERC

Plant Status	Number of Plants	MW of Capacity
Operating	56	30,537
Under Construction	6	4,542
Under Development	12	8,717
<b>Total</b>	<b>74</b>	<b>43,796</b>



Note: Does not include peaking facilities



## Summary of Competitive Bidding Rules in the Southeast

Docket No. 2005-191-E  
David E. Dismukes, Ph.D.  
Exhibit No. \_\_\_\_ (DED-9)  
Page 1 of 1

State	Description
Florida	Before building a plant larger than 75 MW, a utility must secure a determination of need from the Florida PSC. Prior to filing this need determination, the utility is required to solicit and evaluate competitive proposals for supply alternatives by issuing a RFP.
Georgia	For each block of required new supply-side resource identified in a utility's Integrated Resource Plan, the utility must issue a formal written RFP to all potential suppliers. If the utility wishes to consider an option for full or partial ownership of a self-build option, it must submit its construction proposal to provide all or part of the capacity requested in the RFP as a sealed bid with a copy submitted to an independent accounting firm.
Louisiana	Electric utilities must employ a "market based mechanism to support the acquisition of generating capacity or purchase power contracts intended to serve LSPC-jurisdictional retail customers." This "market based mechanism" is defined as a RFP competitive solicitation process. A utility may propose an alternative process or procedure if it can demonstrate that circumstances indicate that a formal RFP would not be in the public interest.
Alabama	Although a formal bidding process is not required by law, the Alabama PSC has urged the development of RFP guidelines to promote bidder confidence and insure that retail customers reap the benefits of wholesale competition.
Arkansas	The Arkansas PSC initiated a proceeding in 2003 to develop Comprehensive Resource Planning Guidelines to be followed by jurisdictional electric utilities.